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MONTANA SITUATION STATEMENT

PREPARED BY:
MONTANA COMMITTEE FOR RURAL DEVELOPMENT

MARCH 1979

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O V E R V I E W

Development basically means meeting the desires of people in Montana. The concept of development relates to four basic areas of concern.

Human Resource Development

- enhancing productive capabilities of people
- money income
- distribution of income
- preserving and building the amenities desired by people

Environmental & Natural Resources Improvement

- conservation of resources
- maintaining and sustaining productivity
- management of resources
- alternative uses of resources

Community Development

- management and planning of public functions
- quantity of services desired
- quality of services desired
- preserving and building the amenities of life people desire in a community

Economic Development

- employment opportunities
- maintaining an economic base
- fostering desired industrial expansion

Human Resources Development

The people of Montana are the single most important element of development. They are both productive resources and consumers. As a resource, developing the capabilities of people is imperative. As consumers, the desires of people are of foremost consideration. The economic system is justified on the basis of its ability in meeting needs and desires of people.

Two major items of state and local expenditures are education and health. Education serves to enhance the capabilities of people and their discrimination as consumers. Health care serves similar purposes.

One major problem in Montana is allocating funds among the various educational programs. The funding of one program often causes another

program to suffer from lack of financial support. Higher education also faces an austere budget in the state today.

The formal education level in Montana is relatively high, averaging 12 years. However, a high quality primary and secondary education is mandatory. A prime concern of local people should be the quality of the basic courses as well as the vocational program. Furthermore, education beyond the high school level is in need of support in Montana to provide additional training for young adults, to upgrade the basic and technical education of working adults, and to retrain the large numbers of adults in Montana who failed to receive even a minimal formal education.

Montana has special health service needs. In many locations, for instance, such basic health measures as preventive vaccinations and dental care are not available at reasonable costs. Vaccination service is commonly supplied free of charge in other states. In addition, the heavy population turnover in Montana (youth leave, but retirees move in) dictates a need for specialized types of services in some locations.

The lack of population concentrations large enough to support conventional education and health care services points to a serious need for studies of alternative ways to provide better services in Montana. Continuing citizen participation also is required to select and adopt cost-saving and quality-increasing innovations in education and health care services.

Finally, data on income distribution show many people are left behind as technology and the economy change. One of the greatest development impacts in Montana would be the upgrading of full-time job opportunities for these people. At present, the capabilities of many people in Montana are under-utilized and therefore represent a resource which is being wasted.

Environmental & Natural Resource Improvement in Montana

The economy of Montana is based upon natural resources, including the environment. Indiscriminate use and misuse of these natural resources can destroy the economic base of the state. Efficient and judicious use of Montana's natural resources is imperative. Mining of minerals eventually exhausts that resource just as over-harvesting of forests and rangeland can reduce long-term productivity. Likewise, many people live in Montana because of the social and physical environment which is in danger of being destroyed by careless use.

Inevitable conflicts arise over the use of Montana's natural resources. This is true for coal mining in southeastern Montana, but

is also true in use of land for agriculture or hunting; use of water for industrial, agricultural, or recreational purposes; and use of forests for timber or recreation. In such cases it is necessary that all private citizens participate in decisions which affect resource use and that systematic ways be instituted to resolve these inevitable conflicts. Montana does not have a Forest Practices Act which would provide for some standards of management on private forest lands such as many forested states now have in effect.

Another natural resource problem is conservation and maintenance. This involves the question of when and how fast to mine minerals. It also involves timing of resource use in agriculture, forestry, and water. In addition, management to foster renewal of resources is a major element of conservation. In this context, problems of water use, weather modification, reclamation of mining and agricultural lands, saline seep, and land use planning are discussed.

A major problem in Montana is the pressures exerted nationally to use natural resources in the state. The national energy crisis has resulted in coal development. Pollution, congestion, and crime in the nation encourages people to move to idyllic places like Montana, forcing real estate development and expansion of services. By the same token, the National Forests and Parks in and around Montana are maintained and are being used by people throughout the nation who increasingly desire these kinds of activities.

Community Development in Montana

The adequacy of community facilities such as housing, utilities, communications, transportation, etc., is hampered by the small size of most communities in Montana. Recent innovations in Montana include the formation of local planning boards to involve citizen participation in the management of local affairs, intergovernmental cooperation as illustrated by establishment of common waste disposal facilities, and the provision for research and information on problems.

By most commonly used indices of the level of development, Montana rates high (included are such items as per capita income, size of farms and other business units, education levels, and government expenditures for facilities). However, the quantity and range of public and private services available to Montanans in most areas of the state are inadequate.

Two new pieces of national legislation should be of major interest to Montanans. These are the Revenue Sharing Act and the Rural Development Act of 1972. Revenue sharing turns funds back to localities, cities, and states for their use. Planning how to use these funds in the best interests of the community makes planning and management at

the local level necessary. This will be a continuing operation over a long period of time.

Economic Development in Montana

Employment in Montana increased seven percent from 1960 to 1970 and income increased, although less rapidly than the national average. Increases in total employment have come about despite the decline in employment in the basic industries.

Montana faces several serious problems in its economy. First, the economy lacks diversity. Any major change in agriculture, forestry, mining, or tourism places undue pressure on the rest of the economic system. A wider base of employment would mean such changes could be absorbed without disruption.

A second problem is the seasonality of employment in the state. A more stable employment pattern could result from better opportunities for full-time employment. A third and allied problem is the stability of full-time employment opportunities for minority elements of the population. Lack of opportunities results in higher social costs, larger welfare loads, and loss of meaning in the lives of these people.

Agriculture is the single most important basic economic activity in the state. Relatively favorable livestock prices for 1978 made it a good year. But this fact should not overshadow basic problems. As an illustration, more acres of productive land will be lost because of saline seeps in Montana than will be lost because of coal mining in the next generation.

As long as poor crop conditions exist in other parts of the world, wheat prices will remain good, assuming the United States does not overproduce. Excellent livestock prices could exist for a couple of more years. But decisions altering market prices for Montana will be made by producers and officials elsewhere in the nation. Montana farmers will have to be prepared for any eventuality because they will have little control over prices for their goods in the years to come.

Montana agriculture needs the support of all citizens of the state. A broader range of alternative crops is needed. This type of research is not provided by work in other states because Montana's climate is unlike theirs for the most part. Management of rangelands for greater productivity awaits basic information which takes years to generate. Finally, use of water management and fertilization practices accompanying water management and weather modification could produce a more viable agriculture for Montana.

Summary

Montana is a unique state with special requirements. The agriculture of the state and the style of living were adopted because of these conditions. Montana remains one of the few sparsely settled regions of the nation in an era when other regions are crowded and faced with the economic and social problems crowding brings.

National population pressures are expected to continue. For this reason, national social programs affecting people will be aimed at urban conditions. Montana's needs are just the opposite since our problems are health, education, and social services in a sparsely settled environment.

The implications are clear. Montanans can design and fund their own services. An alternative is to foster federal programs which build in enough flexibility to enable local people to participate in selecting and designing features which suit their needs. The rural development programs of the seventies could materially influence Montana if this were true.

A balanced development concept includes consideration of: (a) people and their capabilities and desires, (b) environmental and natural resource improvement, (c) community facilities available and desired, and (d) economic development and its level and composition. The material in this report is organized into these four major topic areas.

PART I

HUMAN RESOURCES DEVELOPMENT

Keeping the citizens productive is a vital concern of any progressive society. There are certain needs and wants that must be satisfied. Foremost among these needs and wants are those activities that relate to education and health. Productivity is closely related to both.

Many of the wants and needs relative to education and health are such that they cannot be supplied adequately by the private sector. Sometimes these services are such that all people benefit equally even though the support of such services may be, or appear to be, on an unequal basis. However, society accepts the responsibility because, as producers, the human development concern relates to the overall productivity of people. Human resources are vital components of development. People are both producers and consumers. Productivity is close related to wages, and education and health are associated closely with total productivity.

An additional developmental concern in this human resources section is the provision of health services. This directly affects people as producers and consumers. Illness and disability limit labor force participation. Health also is vital to the quality of life and the ability of people to enjoy life free from the burdens of physical and mental illness.

Finally, income distribution relates to development. Everyone has some concern for his neighbor, so a section on welfare and material on income distribution is included.

THE MONTANA LABOR FORCE

The Montana labor force will increase and will include almost 50 percent of all nonwhite males and females between 1970 and 1979. The current annual growth rate in the employed labor force is two percent. The most rapid recent growth in employment is in the service sectors. The general characteristics of the labor force are shown in table 1.

TABLE 1

CHARACTERISTICS OF THE LABOR FORCE--FISCAL YEAR 1979

	Number	Percent
Total Population	776,000	100
Male population	384,553	49.6
Female population	390,447	50.4
White population	739,416	95.4
Nonwhite population	35,584	4.6
Total Civilian Labor Force	355,981	100.0
Male labor force	220,463	61.9
Female labor force	135,518	38.1
White labor force	344,756	96.8
Nonwhite labor force	11,225	3.2
Total Unemployment	22,427	100.0
Male unemployment	13,565	60.5
Female unemployment	8,862	39.5
White unemployment	20,418	91.0
Nonwhite unemployment	2,009	9.0
Total Employment	333,554	100.0
Male employment	206,898	62.0
Female employment	126,656	38.0
White employment	324,338	97.2
Nonwhite employment	9,216	2.8
Total Unemployment Rate	6.3%	
Male rate	6.2%	
Female rate	6.5%	
White rate	5.9%	
Nonwhite rate	17.9%	

Source: Area Planning Information--Fiscal Year 1979, Employment Security Division, Department of Labor and Industry, Helena, MT

Women in the Work Force

Today, women in Montana make up a sizeable percentage of the work force. In January 1978, women represented 41.2 percent of the nonagricultural work force. The 108,700 women in the work force in 1978 are compared with 88,000 in 1974. Much of the increase in employment for women is in the service industries. The employment of women in Montana as of July 1977 was 1.6 percent higher than the national average. As in the past, the greatest number of women is in trade, finance, insurance, real estate, service, and government. Average salaries are somewhat below the average for men.

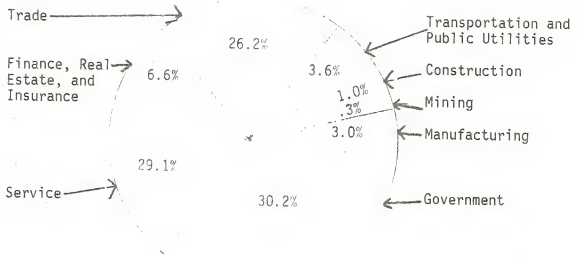
TABLE 2

FEMALE EMPLOYMENT AND AVERAGE WEEKLY EARNINGS BY INDUSTRY

Industry	Percent Employment		Weekly Earnings	
	Montana	National	Montana	National
Mining	6.7	8.0	374.69	303.21
Contract Construction	7.0	7.0	429.46	301.44
Manufacturing	12.3	29.0	273.49	227.70
Transportation & Public Utilities	19.1	22.0	314.61	282.40
Wholesale & Retail Trade	43.5	42.0	163.45	145.52
Finance, Insurance, & Real Estate	62.6	56.0	129.78	169.28
Services	62.0	56.0	111.80	157.72

Source: Montana Department of Labor and Industry, "Montana Women on the Move," January 1978.

FIGURE 1
PERCENT DISTRIBUTION OF FEMALES
BY INDUSTRIAL ATTACHMENT FOR MONTANA
1976 ANNUAL AVERAGES



Source: Montana Department of Labor and Industry, "Montana Women on the Move," January 1978.

EMPLOYMENT BY INDUSTRY GROUPS

Employment is frequently classified as being either basic or non-basic. Those jobs that bring money into the state would be basic jobs, while those that are the result of the basic jobs are called non-basic jobs. Thus, non-basic jobs are dependent upon basic employment.

A review of table 3 reveals that the most growth in employment in Montana has been in the non-basic employment category. Little change has occurred in the basic employment picture since 1960, resulting in a rather stable level of overall basic activity.

Several factors have contributed to this uneven growth in the basic versus non-basic employment picture.

1. Basic sectors have become capital intensive, requiring fewer workers.

2. The labor force has grown rapidly, particularly in certain age groups.

3. More married women are working to supplement family income.

Expansion in the non-basic sector is likely to continue. Any increases in state and local government are likely to be small in light of taxpayer resistance, etc. Hand, trade, and service related growth will likely continue to be strong.

Although there will be an expansion in non-basic employment, the real future of the economy is dependent on a vital basic sector. As basic jobs increase, non-basic employment usually increases.

Statewide Employment Picture

Although Montana is a resource-producing state, the bulk of the jobs are service-oriented. Current projection based on 1974 employment totals suggests there will be a 14 percent increase in the number of jobs in Montana by 1985 or 342,300 workers in 1985 as compared with 299,500 workers in 1974. The service-producing sector of our economy will experience a 19 percent increase by 1985 while the goods-producing sector will generate a four percent increase during the same period of time.

Montana Employment by Major Industry

Montana industries can be categorized by like services or products. Goods-producing industries included agriculture, mining, manufacturing,

and construction. Government, transportation, and finance are examples of the service-producing sector. The service-producing sector will continue to produce the greater number of job opportunities.

The data presented in table 3 summarize Montana employment by major industry division.

TABLE 3

MONTANA EMPLOYMENT BY MAJOR INDUSTRY DIVISION:
1970, 1974, AND PROJECTED 1977, 1985

	No. of Employees by Years in Thousands			Projected 1985	
	1970	1974	1977	Number	% increase from 1977
TOTAL--ALL INDUSTRIES	254.7	299.5	311.2	342.3	10
Agriculture, Forestry, Fisheries	34.3	39.6	39.9	40.7	2
Mining	6.7	7.7	7.7	7.8	1
Construction	18.1	23.1	23.1	23.2	.5
Manufacturing	24.7	25.6	26.4	28.4	7
Durable goods	15.8	16.6	17.4	19.2	10
Nondurable goods	8.9	9.0	9.0	9.2	2
Transportation, Communication, & Public Utilities	18.5	21.0	21.2	21.7	2
Trade	8.9	69.0	71.5	78.2	9
Wholesale trade	10.4	12.5	13.0	14.6	12
Retail trade	46.7	56.5	58.5	63.6	8.5
Finance, Insurance, & Real Estate	9.3	11.5	11.9	12.8	7.5
Services	71.8	85.6	91.6	107.6	17.0
Public Administration	14.2	16.4	17.9	21.9	22.0
TOTAL	254.7	299.5	311.2	342.3	

Total employment in Montana in 1977 was approximately 311,200. The number in the work force by 1985 is projected to be 342,500 or an approximate 11.6 increase. Total employment is shown in table 4 for each month of 1977. Montana employment is seasonal with peak periods during the summer months. Unemployment also fluctuates with peak periods in the early months of each year and in June when students are seeking employment. Montana's employment rate for 1977, as shown in figure 2, generally follows the seasonal patterns of the United States. Major sources of fluctuations in registrated unemployment were due to students and women entering the labor force in certain seasons and the variability of certain agricultural operations. Montana's employment, unemployment, and unemployment rate are shown in figure 2.

Montana's unemployment rate for the first quarter of 1978 appears to be running consistently higher than the national average for the same period. This represents a change from previous years. The rural unemployment rate continues to be higher than the rest of the state. Temporary shutdowns in mining and smelting may be indicators of a bleak future for the nonferrous metal industry in the state. Coal development and related trade and service industries have strengthened the economy in selected areas of the state. The unemployment rate in Montana usually lags behind the nation. However, local factors appear currently to be reversing this trend within the state.

TABLE 4

MONTANA CIVILIAN LABOR FORCE--NOT SEASONALLY ADJUSTED
(in thousands)

Date	Civilian Labor Force	EMPLOYMENT			UNEMPLOYMENT Percent[1]		Labor Management
		Total	Non-Ag	Agri	Total	Mont.	U.S.	
1977							
Jan	316.7	291.7	269.1	22.6	25.0	7.9	8.3	.1
Feb	320.3	294.9	270.1	24.8	25.4	7.9	8.5	.1
Mar	328.4	303.0	273.1	29.9	25.4	7.7	7.9	.1
Apr	336.5	313.9	276.9	37.0	22.6	6.7	6.9	.1
May	340.4	319.8	281.6	38.2	20.6	6.1	6.4	.1
Jun	356.1	333.6	290.1	43.5	22.5	6.3	7.5	.2
Jul	364.4	342.4	295.9	46.5	22.0	6.0	7.0	3.3
Aug	371.4	350.2	300.4	49.8	21.2	5.7	6.8	.2
Sep	355.7	336.3	297.5	38.8	19.4	5.5	6.6	.1
Oct	346.0	327.2	294.2	33.0	18.8	5.4	6.3	.5
Nov	342.1	321.7	293.3	28.4	20.4	6.0	6.4	.1
Dec	337.9	317.1	292.7	24.4	20.8	6.1	6.0	.2
1977 Avg.	343.0	321.0	286.3	34.7	22.0	6.4	7.0	.4

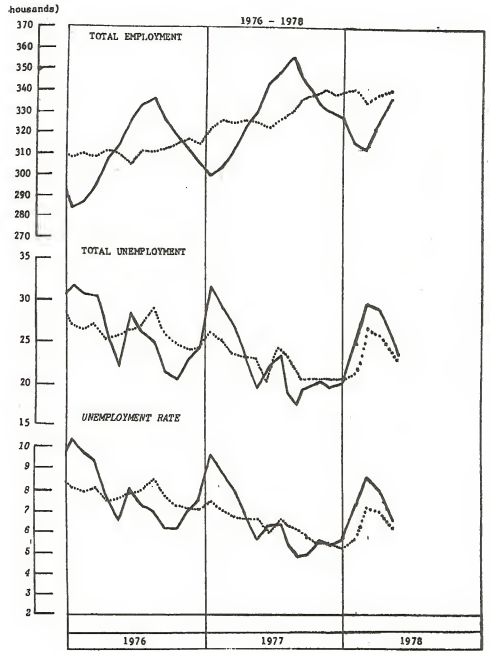
[1]Computed from whole (unrounded) numbers. Series began Jaunary 1970.
[2]Nonadditive--included in total employment. Revised to 1977 benchmarks.

Source: Statewide Industry/Occupation Projections--1985, Employment Security Division, Department of Labor and Industries, Helena, Montana, June 1978, p. 17.

FIGURE 2--MONTANA EMPLOYMENT, UNEMPLOYMENT, AND UNEMPLOYMENT RATE

(Not seasonally adjusted: _____ Seasonally adjusted: .....)

(Thousands)



Source: Montana Employment and Labor Force, Employment Security Division, Department of Labor and Industry, Helena, Montana, June 1978, page 1.

Changes in Employment Within Major Industries

The composition of employment in Montana is changing. The data in table 5 show the number and percent of the labor force within the various sectors of the major industries in 1970 and 1974. Projections are given for 1977 and 1985. The industry with the largest number of employees is the "services" industry. The data indicate that this area will continue to employ the largest number of people through 1985. Higher personal incomes within the state, as well as an increase in tourism, has probably increased the demand for additional services.

The "retail trade" industry employs the second largest number of employees. These jobs depend upon income generated through Montana's basic industries. Expansions in the basic industries through greater employment and/or income will cause greater employment in the wholesale and retail trade. Merchants are quick to recognize the interdependence of their business and what happens in agriculture, mining, manufacturing, and tourism.

Agriculture, forestry, and fisheries remain as a substantial part of the economic base of Montana. Agriculture employed over 12 percent of the labor force in 1970. However, 1985 projections show agriculture as employing a smaller work force than it employs currently. The forestry industry is expected to gain slightly in employment by 1985.

It should be remembered that agriculture is basic to Montana's economy. If agricultural income in total were to decline, many merchants and people working in nonfarm jobs which help support the industry and people in agriculture would find themselves without employment. Thus, a healthy agricultural base in Montana remains essential to the total economy of the state.

Further changes in the statewide employment picture are presented in appendix A. The basic industries of agriculture, forestry, mining, and manufacturing are declining. These represent a large share of the basic employment and a large proportion of the total employment.

TABLE 5

TOTAL EMPLOYMENT IN MONTANA BY MAJOR INDUSTRY--1970, 1974, AND PROJECTIONS FOR 1977, 1985

INDUSTRY	1970		1974		PROJECTED 1977		PROJECTED 1985	
	EMPLOYMENT	PCT.	EMPLOYMENT	PCT.	EMPLOYMENT	PCT.	EMPLOYMENT	PCT.
INDUSTRY TOTAL	254,707	100.00	299,531	100.00	311,191	100.00	342,303	100.00
AGRICULTURE, FORESTRY, & FISHERIES	34,281	13.46	39,575	13.21	39,886	12.82	40,717	11.90
Agriculture	31,973	12.55	36,859	12.30	36,889	11.85	36,889	10.80
Forestry	2,268	.89	2,671	.89	2,951	.95	3,697	1.08
Fisheries	40	.02	45	.02	47	.02	52	.02
MINING	6,695	2.63	7,718	2.58	7,744	2.49	7,813	2.28
Metal	3,975	1.56	4,149	1.39	3,840	1.23	3,016	.89
Coal	102	.04	516	.17	582	.19	757	.22
Crude petroleum & natural gas	1,874	.74	2,084	.70	2,333	.75	2,416	.77
Quarrying & non-metal	744	.29	969	.32	989	.32	1,044	.30
CONSTRUCTION	18,073	7.10	23,118	7.72	23,138	7.44	23,190	6.77
General building	3,047	1.20	6,584	2.20	5,950	1.91	4,261	1.24
General contractor exc. bldg.	9,517	3.74	8,792	2.94	9,490	3.06	11,351	3.32
Special trade contractors	5,509	2.16	7,742	2.58	7,697	2.47	7,578	2.21
MANUFACTURING	24,702	9.70	25,613	8.55	26,385	8.48	28,445	8.31
Durable goods	15,767	6.19	16,656	5.56	17,355	5.58	19,220	5.62
Ordnance	618	.24	141	.05	295	.09	706	.21
Lumber & wood products	8,451	3.33	9,735	3.24	9,992	3.21	10,678	3.12
Logging camps	1,914	.75	2,208	.74	2,319	.75	2,615	.76
Sawmills, millwork, misc. products	6,537	2.58	7,527	2.50	7,673	2.46	8,063	2.36
Furniture and Fixtures	130	.05	147	.05	141	.05	125	.04
Stone, Clay, Glass Products	1,002	.39	1,221	.41	1,269	.41	1,397	.41
Glass and glass products	0	.0	3	.0	4	.0	8	.0
Cement, concrete, plaster	798	.31	1,008	.36	1,129	.36	1,240	.36
Structural clay products	32	.01	76	.03	79	.03	88	.03

Agriculture, Forestry, and Fisheries. Agriculture remains Montana's largest export industry and provided employment opportunities to 37,000 workers in 1974. The employment decline experienced during the sixties and seventies is expected to level off. The 1985 employment forecast for this industry is 37,000 workers--the same as 1974. Employment opportunities exist in this industry through replacement needs rather than by industry expansion. Worldwide demand for food will help offset technology in stabilizing employment levels. Forestry and fisheries are primarily government controlled and should increase proportionately with the population. Any industry expansion during the period will be attributed to forestry and fisheries rather than to agriculture.

Mining. Mining has played an important role in Montana's history and will continue to do so in the future. Although employment has been declining since the 1940s, interest in energy resources--such as Montana's coal--will help stabilize employment as technology and prices adversely affect metal mining employment. Industry expansion in coal, petroleum, natural gas, quarrying, and nonmetallic mining will be prevalent as will replacement needs in all industries in this division. Mining employment levels were estimated at 7,700 workers in 1974 and forecast to 7,800 workers by 1985.

Contract Construction. Seasonal employment levels are extreme in the contract construction industry, but annual employment opportunities have remained nearly constant since 1949. This fact is in spite of large short-term construction projects such as the Minuteman Missile Project, Yellowtail Dam, Libby Dam, Colstrip Units #1 and #2, and the interstate highway system. A constant trend line is expected to continue in this industry through 1985; however, large short-term construction projects are expected to increase employment during the period, and after completion, return employment levels to the trend line of approximately 23,000 workers. Workers will be needed for these large construction projects as well as for replacement needs.

Manufacturing. Manufacturing in Montana is centered around the lumber and wood products, primary metals, and food products industries. These three industries account for two-thirds of the employment in Montana's manufacturing division. Slow growth is forecast through 1985 with employment levels increasing by only 2,800 workers. The durable goods sector of manufacturing is forecast to have 19,200 workers by 1985 with nondurable goods having 9,200 workers. Seasonal employment and labor disputes in parts of manufacturing can have far-reaching effects in Montana's economy. Manufacturing in Montana is not comparable to the nation's manufacturing structure.

Transportation, Communications, and Public Utilities. Slower than average growth is expected for this industry division; however, the major industries in this division are reacting differently and must be separated to analyze their respective growth trends. Transportation,

primarily because of railroads, is expected to record a loss of employment by 1985. Communication and the public utilities industries combined are expected to increase 20 percent with employment growth providing opportunities for 9,300 workers by 1985. Major employment gains will be made in the electric, gas, and sanitary services industries with communications remaining stable.

Wholesale and Retail Trade. An expected increase of 9,000 workers by 1985 will help wholesale and retail trade--Montana's second largest industry. Total employment for this division is forecast to exceed 78,000 workers. Wholesale trade will account for 19 percent and retail trade, 81 percent. Eating and drinking places, gas stations, and general merchandise stores will employ the largest number of workers with wholesale dry goods, apparel, and farm produce employing the fewest number of workers. Generally, good employment opportunities are expected to prevail in this industry division through industry growth and replacement needs.

Finance, Insurance, and Real Estate. Although this industry is small, an 11 percent growth rate during the 1974 to 1985 period can be expected. Growth in this division is primarily linked to population growth. Workers in this industry division are usually white collar, and they can be expected to expand their ranks by 1,300 workers. Replacement needs are still another source of providing jobs in this industry division.

Services. The services industry is Montana's largest industry division and is expected to provide 103,200 jobs for workers by 1985. This represents a 27 percent increase or an additional 22,000 workers over 1974 levels. Services include the industries of personal, household, lodging, auto, health, legal, educational, and miscellaneous services. All industries within this division are expected to provide good employment opportunities through growth and replacement needs by 1985. More than half of these job opportunities will be in the health and educational service industries. The major reasons for the rapid growth in this division results from an increasing population and standards that society now demands.

Public Administration. Included in the public administration industry are postal services and federal, state, and local administration workers that cannot be placed in any of the other major industry divisions. This government division is expected to grow at a 33 percent rate by 1985 with federal and local administration recording the largest number of workers. Industry growth by 1985 will provide jobs for nearly 5,500 additional workers over 1974 levels.

MONTANA EMPLOYMENT BY MAJOR OCCUPATIONAL DIVISIONS

Changes in the occupational structure can be expected over the next decade. White collar workers will continue to outnumber blue collar workers in 1985. The prediction is based on the facts of continued growth, more specialization, and a more complex job structure. Service workers are expected to comprise the largest single group of workers in 1985. The number of farm workers who are employed directly in the production of food and fiber is expected to decrease slightly by 1985.

TABLE 6

DISTRIBUTION OF MONTANA TOTAL EMPLOYMENT BY MAJOR OCCUPATION DIVISIONS: 1970, 1974, AND PROJECTED 1985

Occupation-- All Divisions	1970	%	1974	%	1985	%
Total-- All Occupations	254,690	100.00	299,424	100.00	342,335	100.00
Professional, Technical, Kindred	34,421	13.52	37,896	12.66	47,042	13.74
Managers, Officials, Proprietors	29,246	11.48	37,716	12.60	42,675	12.47
Clerical & Kindred	33,168	13.02	39,738	13.27	49,531	14.47
Sales Workers	14,350	5.63	16,780	5.60	18,766	5.48
Crafts & Kindred Workers	30,976	12.16	42,417	14.17	47,108	13.76
Operatives & Kindred	28,569	11.22	31,651	10.57	35,066	10.24
Service Workers	38,567	15.15	42,856	14.31	53,658	15.68
Laborers, except farm & mine	14,861	5.83	15,791	5.27	16,196	4.73
Farmers & Farm Workers	30,532	11.99	34,579	11.55	32,293	-9.43

Source: Research and Analysis Section, Employment Security Division, Department of Labor and Industry, P. O. Box 1728, Helena, MT.

Formal education is one of the principal determinants of income in society. As the level of education increases, both the productivity and the capability of people to enjoy life improves. The cost of providing education utilizes a major portion of the Montana tax dollar.

From the total state budget for 1977-1978 of $513,926,187, approximately 29 percent was allocated for education. In total, Montanans spend approximately $110,463,478 of state money, and approximately $121,000,000 of local money was spent on elementary and secondary education in 1977-1978. The percentage of federal support to education in Montana has decreased steadily. Approximately 17.5 percent of the state general fund went toward support of the five units of the university system. Effective educational programs are costly and the future of the entire Montana educational system will depend on the financial support provided.

Montana's population in 1977 was approximately 760,000. It is estimated that the growth rate will be one and one-half to two percent each year through 1982. The figures in table 7 show the nature of the population to be served by the educational program of Montana.

Primary and Secondary Education

Montana is a sparsely populated state. In October 1976, there were 816 public elementary and secondary schools operating in the state with a total enrollment of 170,343 students. Of the 816 schools, 620 are operating elementary schools; 25 are accredited junior high schools; and 171 are operating high schools. In addition, there are five postsecondary vocational-technical education centers within the state.

Just over 12 percent of the total population is between the ages of 12 to 25, with those from 16 to 21 making up the largest proportion of the group. Census figures show that a high percentage of persons between 22 and 25 leave the state for employment or further training. However, data indicate that within five years the state regains a normal distribution pattern.

Montana students with special needs (disadvantaged and handicapped) make up over 11 percent of the state's population. Of this group, 63 percent are classified as disadvantaged, and 37 percent are persons with handicaps.

The enrollment of our secondary schools (grades 9 through 12) represents 7.5 percent of the total state population. Secondary school

enrollment is expected to peak in 1978 and reach a low point of approximately 54,000 by 1982. Postsecondary enrollment is expected to remain stable over the next five years.

TABLE 7

POPULATION CHARACTERISTICS

Year	Male	Female	Indian	Spanish American	Negro	Oriental	Urban	Rural	Secondary Enrollment	Post-Secondary Enrollment	Disadvantaged	Handicapped
1978	382,583	388,794	30,137	8,562	2,214	1,210	408,830	362,547	57,709	34,312	54,188	31,500
1979	388,048	394,348	31,314	8,684	2,245	1,220	418,582	363,814	56,533	34,802	54,921	31,903
1980	393,591	399,982	32,538	8,808	2,278	1,231	428,529	363,044	57,369	35,300	55,402	32,129
1981	399,214	405,695	33,809	8,934	2,310	1,245	438,675	366,234	56,217	35,804	55,960	32,335
1982	404,916	411,491	35,130	9,062	2,343	1,258	449,024	367,383	54,077	36,315	56,611	32,590

Source: Montana 5-Year Plan for Vocational Education, 1978-1982, Office of Superintendent of Public Instruction

FIGURE 3

MAP OF MONTANA

STATE AVERAGE DROPOUT RATE FOR HS STUDENTS FOR 1976

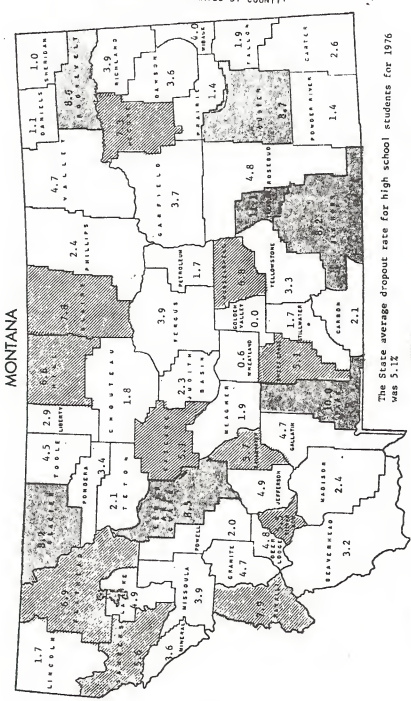

MONTANA DROPOUT RATES BY COUNTY!
MONTANA
The State average dropout rate for high school students for 1976 was 5.12
COUNTIES WITH ABOVE THE STATE AVERAGE DROPOUT RATE
COUNTIES WITH LESS DROPOUT RATES

Figure 3:

Vocational Education

All work has dignity. This concept is basic to a vocational program dedicated to preparing youth and adults for jobs and a multiplicity of roles in our contemporary society.

Vocational education has enjoyed renewed interest in Montana during the past decade. Vocational education in Montana is concerned with providing education and training opportunities compatible with employment needs of workers entering the world of work. A considerable amount of time and resources has been dedicated to instructing youth who wish to explore and learn new skills for useful and gainful employment. However, vocational educators are also interested in helping adults who wish to upgrade their occupational competencies. "The goal ....is to establish a system of vocational education which contributes to a relevant, coordinated, statewide program of basic quality education to meet the vocational needs of the people of Montana."

The data in table 8 provide estimates of the current level of employment in the major occupational areas in which vocational education training programs are now being conducted. The data compare expansion and replacement needs with the projected supply of trained persons from vocational education programs as well as from other sources for the planning period 1978 through 1982.

TABLE 8

CURRENT AND FUTURE JOB NEEDS

Educational Area	Current Employment	Expansion and Replacement 1979	Projected Supply from all sources	
			Vocational Education 1979	Other Sector 1979
Agricultural Education	36,300	1,240	544	130
Distributive Education	34,360	2,502	371	137
Health Occupations	10,270	1,055	439	286
Wage-Earning Home Economics	6,360	510	475	25
Office Occupations	27,230	2,640	1,691	703
Technical Education	350	15	73	14
Trades & Industry	44,750	2,040	1,006	582

Source: Montana Annual Plan for Vocational Education, FY 1979, Office of Public Instruction

Secondary Vocational Education

Vocational education is offered in many of our high schools throughout Montana. Programs at the secondary level are designed to equip students with some basic skills needed for employability while preparing these individuals to enter a more advanced vocational education program.

Agriculture. Vocational education in Agriculture/Agribusiness/ FFA (Vo-Ag) at the secondary level is an instructional program designed for persons in grades 9 through 12 who wish to develop agricultural occupational competencies and to meet the manpower demands for persons with agricultural/agribusiness skills.

Business and Office Occupations. The business office program is designed to prepare the student for entry level employment or to improve the competencies of the unemployed, under-employed, or employed persons in a business occupation.

Distributive Education. Distributive education in Montana's secondary schools is designed to prepare persons in grades 11 and 12 for careers in marketing and distribution. Distributive education offers a program of instruction which develops those marketing, social, technical, and basic skills competencies related to the person's chosen distributive occupation.

Trade and Industrial Education. Trade and industrial education in Montana's secondary schools is designed to prepare persons in grades 11 and 12 to enter into the work of an industrial trade or service occupation. Skill level at completion of programs is such that graduates desiring full training in their chosen occupation should expect to continue training on the job and/or in supplementary training while employed or by enrolling in post secondary vocational education.

Consumer and Homemaking. Consumer and homemaking education is designed to help individuals and families improve home environments and the quality of personal and family life, including instruction in food, nutrition, human development, child development, parenting, clothing, housing, energy, and management of resources with emphasis on selection, use and care of goods, services, and other consumer responsibilities.

Industrial Arts. Education programs relate to subject matter or related courses organized for the development of understanding all aspects of industry and technology, including learning experiences involving activities such as experimenting, designing, constructing, evaluating, and using tools, machines, materials, and processes.

Postsecondary Vocational Education

Postsecondary vocational training is offered at five vocational-technical centers in Montana--Butte, Billings, Great Falls, Helena, and Missoula. Programs are also offered at community colleges in Glendive, Kalispell, Miles City, and Northern Montana College in Havre. The programs in these centers are designed for persons who have completed or left high school. Students are 16 years of age or older and desire full-time study in a specific vocational education program.

Higher Education

The Montana university system includes six units. The primary responsibility of the units is to provide quality undergraduate and graduate education. The university system provides extension, continuing education, and public service activities in addition to undergraduate and graduate education. The University of Montana at Missoula, Montana State University at Bozeman, Eastern Montana College at Billings, Northern Montana College at Havre, Western Montana College at Dillon, and Montana College of Mineral Science and Technology at Butte comprise the university system. The major goal is to provide high quality and diverse educational opportunities and services to the citizens of Montana.

THE OFFICE OF PUBLIC INSTRUCTION

The Office of Superintendent of Public Instruction has an organizational structure which includes four major departments: (1) financial services department, (2) vocational and occupational services department, (3) basic instructional services department, and (4) the administrative services department.

Administrative Services Department

This department coordinates and administers support activities of the department. An effort is being made to bring citizens and school personnel of Montana into the office decision-making process. Three educational representatives have been appointed with one each based in Missoula, Great Falls, and Billings. Each representative works toward making the office more responsive to the needs of the people of Montana. The department is striving to increase its ability to acquaint Montana citizens with issues and developments. Montana Schools, the nine-issue-per-year newspaper, is distributed to school personnel, school and public libraries, and other interested individuals.

Other units of the department provide services which include: (1) planning, developing, and evaluating state and federal programs, (2) assisting school personnel in Montana in locating information and material, and (3) assisting in testing programs.

Basic Instructional Services Department

The department is made up of the basic skills unit, special education unit, and the federal programs unit.

This entire department concentrates on instructional related activities. The various divisions of the department provide teachers, students, parents, school boards, and school administrators with information and services related to school accreditation, teacher certification, curriculum planning, adult education, and instructional media. Currently curricula in energy, environment, and competency based material for the gifted student is being prepared.

Financial Services Department

Through this department, state equalization money, pupil transportation reimbursement, and the state's share of the permissive mill levy is allocated and distributed. Data processing and accounting services are provided for all segments of the Office of Public Instruction. An additional service, supervision and distribution of federal and state assistance for school lunch programs, is provided through the School Foods Service Division.

Vocational and Occupational Service Department

This department has been given the responsibility of developing a vocational education program for those students who wish to learn new skills for gainful employment and for training to those who wish to upgrade their occupational competency. The department is charged with the responsibility of coordinating and administering 758 programs in secondary, postsecondary, and adult vocational education which receive state and federal funds.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL SCIENCES

There is a continuing need for better health education of the citizens to enable each one to attain good health and live a more satisfactory and comfortable life. However, people must understand the health problems that exist before they will be motivated to carry out good health practices.

The overall objective of the department is to protect and promote health of the people of Montana. This is accomplished by implementing health programs and enforcing public laws and regulations. The department must assess health needs in cooperation with local and private sources. The functions of the department are accomplished through a series of planned health programs. The department has recommended a number of activities that they feel would help meet the health needs in Montana. Examples of the activities:

1. Provide increased support to Montana Health Data Management Systems to speed up coordination and automation of health data.

2. Establish method of reviewing health care institutions.

3. Strengthen the material and child health activities.

4. Expand school preventive programs.

5. Increase capability to investigate and control the occurrence of communicable diseases.

6. Improve the quality of area educational meetings for community health nurses by planning to meet local needs.

7. Assist in establishing emergency medical services in areas where such services do not exist.

8. Make the public more aware of the legislative mandates and rules designated to protect the environment and health of the people of the state.

9. Adopt regulations to protect underground water.

The "Treasure State Health" is a quarterly newsletter published for Montana health professionals and citizens interested in public health.

Health Planning and Research Development

A Montana Health Data Management System has been established in cooperation with the Bureau of Records and Statistics. The program conducts the health planning activities of the state and the Health System Agency plans which relate to the government of the state. The program also coordinates its efforts of other health agencies and organizations by providing financial aid, by adopting a common planning format, by coordinating the Health System Plan and State Health Plan, and by coordinating the program review process. Regular construction and licensure inspections are made by the program.

Health Services Program

Providing services to improve the health of mothers and children, alleviating chronic illness and decreasing the incidence of infirmities related to aging are the major goals of the Health Service Program. To accomplish these goals, children from Medicaid families are screened and financially qualified children and pregnant women are given adequate nutrition and counseled for proper dietary habits.

Women are taught self-examination of the breast; communities are assisted in screening for hypertension; and children with heart disease are examined. Dental health education is provided through the School Preventive Program. Many other services are provided that relate to maternal and child health care.

Communicable Disease Control Program

Through cooperation with and assistance of the local health departments, the communicable disease program keeps a close surveillance on all communicable diseases within the state. Investigations are made, necessary control measures instituted, and the public informed about further prevention of the disease.

Management Services Program

In addition to providing supervisory, administrative, and legal support to the operation of public health programs, the program provides assistance through the Bureau of Nursing to local community health nurses in orientation, program planning, and in area educational meetings. Further assistance is given to areas establishing home health agencies and in the recruitment and placement of qualified community health nurses.

Health Care Facilities and Manpower Program

This program has the legal authority to issue licenses, grant Medicaid certification, and to monitor the operation, maintenance, and design of medical facilities and services. It can promulgate and revise licensing regulations, investigate citizen complaints and revoke the license or certification of a facility or service.

Environmental Health Program (Environmental Sciences)

The activities of this program are carried out through the activities of six separate bureaus: Air Quality, Food and Consumer Safety,

Occupational Health, Solid Waste Management, Subdivision, and Water Quality. Each bureau is responsible for monitoring those problems of health maintenance as they relate to the conditions of the environment and stresses on the environment caused by an expanding and growing society.

Water and Wastewater Operators Program

This program is responsible for helping cities construct and maintain adequate sewage treatment plants. Assistance is provided to cities as they seek federal construction grants.

Consumer Hotline

A cooperative arrangement between the Montana Department of Health and Environmental Sciences and the Governor's Office of Citizens' Advocate will enable citizens of the state to call the Department's Food and Consumer Safety Bureau on a toll-free telephone line--(1-800-332-2272). Citizens are encouraged to call whenever they have questions about any consumer product (except alcohol, tobacco, firearms, or automobiles).

Regional Cancer Treatment Center

Community involvement was a key factor in the establishment of the Northern Rockies Regional Cancer Treatment Center in Billings, Montana. The center treats up to 40 patients per week in an ultra-modern facility. The equipment at the center is not a duplication of the equipment available at the two Billings hospitals. "The prevailing atmosphere of the center is one which says that patients will remain involved in life with the community people around them."

THE MONTANA FAMILY

Montana families are getting smaller. In 1965, 68.9 percent of all children born was the first, second, or third child in the family. By 1976, 89 percent of all children born was the first, second, or third child. Montanans are having fewer children. There is, however, a trend toward longer life. In 1970 the median age was 71.05 while in 1976 the median age had reached 72.12 years.

Causes of Death

Causes of death indicate some of the health care needs in Montana. The four leading causes of death are present in the following chart.

FIGURE 4
RATES FOR THE FOUR LEADING CAUSES OF DEATH
1960-1976

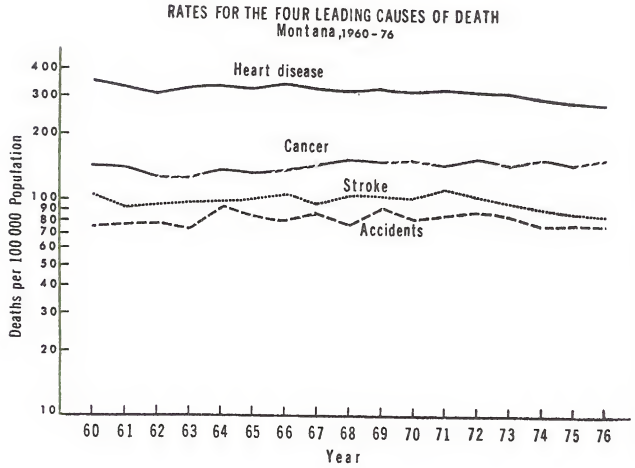


Figure 4: Source--The Bureau Of Records And Statistics, State Department of Health and Environmental Sciences, Helena, Montana, 1976

There were 2,178 deaths caused by heart disease in 1976. In general, the number of deaths caused by heart disease appears to be decreasing. The second leading cause of death is cancer. A total of 1,991 deaths, all all-time record, was reached in 1976. Death from lung cancer continues to increase especially among women--with a 137.5 percent increase since 1968. Strokes took the lives of 637 persons in 1967 with half of this groups being more than 81 years old. There appears to have been a decrease in the stroke death rates over the past five years.

Accidents have been the fourth leading cause of death in Montana for a number of years. Accidents strike among the relatively young. In 1976, the median age for those dying in accidents was 30.9 years. In the 1 to 4 age group, accidents accounted for 57.4 percent of deaths.

Motor vehicle accidents cause 50.3 percent of all accidental deaths. Again, the young are often the victims (26.5 years). The death rate by automobile accident has decreased, however, from 50.1 per 100,000 population in 1972 to 38.6 per 100,000 in 1976. Some of the redirection may be due to the 55 mile per hour speed limit, better roads, and safer automobiles.

Changes in Births

The Montana birth rate has fluctuated, whereas the U. S. birth rate has been declining since the late 1960s. In Montana, there were approximately twice as many births as deaths in 1976. The birth rate has varied between 15.8 and 17.4 births per/M since 1971. Some feel that a "now or never" on the part of mothers born during the World War II baby boom may increase the birth rate over the next few years.

Statewide, the median age of mothers at childbirth has increased. This fact should tend to increase the educational attainment of the mothers. In 1976, one-half of the mothers had 12.72 or more years of education.

The number of out-of-wedlock births continues to rise in Montana. In 1976, 55.3 percent of the births were to teen-aged mothers compared with 53.0 percent in 1975.

15-24 YEARS
Pct. 1971
Pct. 1970
Total, all causes 100 100
Motor vehicle accidents 46 115
Accidents, exclusive of motor vehicle 23 93
Suicides 7 29
Malignant neoplasms 5 11
Homicides 4 -
All other causes 15 39
25-34 YEARS
Pct. 1971
Pct. 1970
Total, all causes 100 100
Motor vehicle accid. 35 33.7
Accidents, exclusive of motor vehicle 16 21.7
Suicides 7 15.3
Malignant neoplasms 7 4
Homicides 6
Injury undetermined whether accidents or purposely inflicted 6
All other causes 23 25.7
35-44 YEARS
Pct. 1971
Pct. 1970
Total, all causes 100 100
Heart diseases 17 12.1
Accidents, exclusive of motor vehicle 15 11.6
Malignant neoplasms 15 12.9
Motor vehicle accidents 14 13.9
Cirrhosis of liver 7 6.3
Suicides 5 9.7
All other causes 27 24.6
45-54 YEARS
Pct. 1971
Pct. 1970
Total, all causes 100 100
Heart diseases 28 28.7
Malignant neoplasms 23 23.8
Motor vehicle accid. 8 4.9
Cirrhosis of liver 5 6.3
Cerebrovascular disease 5 4.3
Accidents, exclusive of motor vehicle 4 4.5
Pneumonia, all forms 3
Suicides 3 3.8
All other causes 21 21.9

FIGURE 5. CAUSES OF DEATH IN MONTANA, 1976, FOR SELECTED AGE GROUPS.*

Source: Montana Department of Health & Environmental Sciences, Health Education Bureau.

PUBLIC ASSISTANCE IN MONTANA

The welfare system of the nation has been under increasing criticism. Payments for public assistance have mushroomed in the nation.

For 1969, census data reveal that 3.9 percent of Montana families received public assistance income--not counting Social Security payments. In that year, 2.2 percent of all family income in Montana was public assistance.

Data in table 9 indicate the number of persons in November of 1977 receiving general assistance and aid to families with dependent children. Comparisons are made with the United States and surrounding states.

Social Security

Other forms of assistance include monies received through Social Security and through the Supplemental Security Income (SSI) program. Figures shown in table 10 summarize the number of persons receiving Social Security payments within the various categories and the amount received for December 1977. Montana ranks third among the states of Colorado, Utah, Montana, South Dakota, North Dakota, and Wyoming in the payment of Social Security. Colorado paid out $65,426,000 and Wyoming distributed $10,161,000 during the December 1977 period.

Supplemental Security Income (SSI)

Supplemental Security Income is a federal program. The amount received by the individual depends on other income, living arrangements, and other circumstances which affect financial needs. The amounts received are increased automatically to keep pace with changes in the cost of living. During 1977, 7,070 Montanans received a total of $9,532,000 in SSI payments.

TABLE 9

RECIPIENTS OF MONEY PAYMENTS AND AMOUNTS OF PAYMENTS
BY UNITED STATES AND SELECTED STATES - NOVEMBER 1977

State	General Assistance				Aid to Families with Dependent Children					
	Number of Recipients	Average Payment	Percent Change from 11/76 Number	Percent Change from 11/76 Amount	Number of Families	Number of Recipients	Average Family Payment	Average Recipient Payment	Percent Change from 11/76 Number	Percent Change from 11/76 Amount
U. S. TOTAL*	799,975	124.67	-10.5	- 3.1	3,525,538	10,759,191	240.86	78.92	-3.3	+2.5
Colorado[1]	907	69.20	-19.2	+101.4	30,644	87,223	207.73	72.98	-3.9	-3.5
MONTANA[1]	1,165	33.84	+17.8	+ 15.4	6,240	17,657	182.61	64.54	+0.4	+5.6
N. Dakota	175	47.43	-31.4	+ 1.9	4,770	13,537	229.55	80.89	-0.5	-1.7
S. Dakota(E)	1,041	18.60	+ 4.9	+ 20.0	7,530	22,045	203.00	69.34	-9.7	-20.1
Utah[1]	1,885	130.80	+20.4	+ 24.7	13,007	37,881	250.06	85.86	+3.4	+ 8.0
Wyoming	642	36.32	+28.1	+ 46.7	2,356	6,225	192.82	72.98	-4.8	- 2.5

* = 42 states
[1] = Includes data on unemployed--parents segment and foster care
(E) = Estimate

Source: Montana Department of Social and Rehabilitation Service, Statistical Report, June 1978

TABLE 10

SOCIAL SECURITY PAYMENTS RECEIVED BY MONTANANS--DECEMBER 1977

Categories of Persons Receiving Payments	Number	Amount
		(dollars)
Retired workers	60,190	14,358,000
Disabled workers	8,470	2,265,000
Spouses of retired workers	10,901	1,326,000
Spouses of disabled workers	1,542	133,000
Children of retired workers	2,515	266,000
Children of disabled workers	4,599	376,000
Children of deceased workers	10,542	1,830,000
Widowed mothers	1,869	335,000
Widowers and widows	13,229	2,961,000
Parents	48	9,000
Special Age 72	673	52,000
TOTAL	224,578	23,911,000

State of Montana Social Service Agency

Montana receives 8.7 million dollars in Title XX funds for social service programs annually. With few exceptions, the state can determine the kind of social service programs that are needed. Expenditures not eligible for Title XX reimbursement include: medical care, construction and capital improvement costs, educational services that are available through the public schools, expenditures which could be made under Medicare, and most hospital, nursing home, and foster care needs.

The Title XX legislation requires that social service programs provided with Title XX funds be directed toward five general goals. These goals are:

1. To achieve economic self-support; to prevent, reduce, or eliminate dependency.

2. To achieve self-sufficiency.

3. To prevent or remedy neglect, abuse, or exploitation of children.

4. To prevent inappropriate institutional care by providing community-based services.

5. To provide institutional care where appropriate.

Montana is divided into five separate geographic regions for the purpose of social service planning.

TABLE 11--SUMMARY OF PUBLIC ASSISTANCE AND MEDICAL CARE STATISTICS

Type of Assistance	June 1978	May 1978	June 1977	% increase / decrease from: 5/78	6/77
Obligations Incurred for Public Assistance and Medical Care					
All Public Assistance	$9,108,864.88	$7,225,293.79	$6,646,042.73	+26.1	+ 6.8
Aid to Dependent Children:					
Regular ADC[2]	1,078,885.00	1,098,195.00	1,010,169.24	- 1.8	+ 6.8
Unemployed parent	69,091.00	86,164.00	46,115.00	-19.8	+49.8
Medical Assistance	6,263,013.21	4,404,154.37	3,893,484.10	+42.2	+60.9
Food Stamp Recipient Paid	332,710.00	340,522.00	342,969.00	- 2.3	- 3.0
Food Stamp Bonus Value	732,107.00	708,847.00	720,599.00	+ 3.3	+ 1.6
County Medical Program[1]	364,808.72	342,562.00	346,552.86	+ 6.5	+ 5.3
General Assistance	39,552.01	37,014.27	37,111.66	+ 6.9	+ 6.6
Burials	7,593.20	8,040.89	4,745.09	- 5.6	+60.0
Day Care	88,688.52	91,059.97	98,831.20	- 2.6	-10.3
ADC Foster Care[3]	76,047.16	76,580.77	86,331.47	- 0.7	-11.9
Regular Foster Care[3]	125,460.06	118,317.52	105,249.11	+ 6.0	+19.2
Number of Recipients of Public Assistance					
Aid to Dependent Children:[2]					
Families	6,120	6,206	6,108	- 1.4	+ 0.2
Children	12,160	12,405	12,147	- 2.0	+ 0.1
Eligible Adults	5,173	5,320	5,097	- 2.8	+ 1.5
ADC Unemployed Parent:					
Families	256	307	186	-16.6	+37.6
Children	629	776	457	-18.9	+37.6
Eligible Adults	483	589	351	-18.0	+37.6
Medical Assistance	17,874	19,555	17,509	- 8.6	+ 2.1
Food Stamp Families	8,591	8,864	9,113	- 3.1	- 5.7
Food Stamp Recipients	25,210	25,095	26,968	+ 0.5	- 6.5
General Assistance	595	547	635	+ 8.8	- 6.3
Day Care	1,415	1,568	1,649	- 9.8	-14.2
ADC Foster Care	373	373	434	0	-14.1
Regular Foster Care	559	541	539	+ 3.3	+ 3.7
Average Payments to Recipients					
Aid to Dependent Children:[2]					
Per Family	176.29	176.29	165.38	- 0.4	+ 6.6
Per Person	62.24	61.96	58.58	+ 0.5	+ 6.2
ADC Unemployed Parent:					
Per Family	269.89	280.66	247.93	- 3.8	+ 8.9
Per Person	62.13	63.12	57.07	- 1.6	+ 8.9
Medical Assistance	350.40	225.22	222.37	+55.6	+57.6
Food Stamp Per Family	123.95	118.39	116.71	+ 4.7	+ 6.2
Food Stamp Per Person	42.24	41.82	39.44	+ 1.0	+ 7.1
General Assistance	66.47	67.67	58.44	- 1.8	+13.7
Day Care	62.68	58.07	59.44	+ 7.9	+ 4.6
ADC Foster Care	203.88	205.31	298.92	- 0.7	+ 2.5
Regular Foster Care	224.44	218.70	195.27	+ 2.6	+14.9

[1]Includes physicians' services, hospitalization, nursing home care, drugs, medical supplies, and other medical care. [2]Includes ADC Unemployed Parent. [3]Foster Care figures are overstated because of retroaction to the payroll that amounts to approximately 6 percent.

MONTANA'S NATIVE AMERICANS

In 1974, the Urban Management Consultants (UMC) of San Francisco prepared an in-depth statistical profile on the Indians in Montana. Local, state, federal, and other sources of information were utilized in preparation of the report. The Profile of the Montana Native American prepared by the consulting firm indicated that comprehensive and usable statistics on the social/economic status of Native Americans have been generally unavailable, particularly in states, counties, and cities.

The handbook of statistics relating to Montana's native Americans presented 125 tables categorized under nine different areas. A few facts from this report are presented in the following paragraphs.

Population and Demographics

Much controversy seems to reign over the accuracy of population estimates. The 1970 U. S. Census reported 27,130 Indians in Montana. The UMC report estimated there were 36,710 Indians in Montana in 1973. Three-fourths of all Indians live on or adjacent to one of the seven reservations--Blackfeet, Crow, Flathead, Fort Belknap, Fort Peck, Northern Cheyenne, and Rocky Boy. Indian people are generally mobile. This causes great problems in actually estimating the population. This, and the fact that the Indians often live in rural, somewhat isolated areas, makes it difficult to locate everyone for census purposes. Also, because of the great number of surveys and studies in the past, the Indian people view additional surveys with skepticism.

Health and Vital Statistics

There are two major sources of health and vital statistics for Montana Indians. The Bureau of Records and Statistics in the Montana Department of Health and Environmental Sciences collects and compiles data from county records on marriages, divorces, births, deaths, and morbidity.

Law and Justices

The Board of Crime Control in the Montana Department of Law Enforcement and Public Safety is the centralized source for crime statistics in Montana. The Bureau of Indian Affairs collects statistics on complaints and incarcerations on Montana reservations. In 1972, 5,088 adult and juvenile felony arrests were reported in Montana among all races. Of this number, 891 were arrests of Indians, or 17.5 percent of the total.

Land, Agriculture, and Development

The Bureau of Indian Affairs is the only source of data on Indian lands. The Bureau regularly compiles statistics on the total acreage of Indian trust land and the amount of tribal and allotted acres for each Montana reservation. The Bureau also funds a variety of commercial and industrial projects near the reservations. The Economic Development Administration (Department of Commerce) also financially supports developmental enterprises on the reservation.

The Department of Agriculture is designed to assist land owners and users. Woodland owners are eligible for Forest Service assistance if they had not received assistance previously. Agricultural operators may cooperate in the SCS program and thereby become eligible for technical assistance.

PART 2

ENVIRONMENTAL AND NATURAL RESOURCE IMPROVEMENT IN MONTANA

Montana's economic base is built upon natural resources. Agriculture, mineral mining, and forestry extract essential elements from the natural resource endowment--principally for export to other states. Tourism, recreation, and second-home and retirement activities, in their own way, also bring about changes in the natural resources of the state. It is imperative that the natural resource endowments of the state be used efficiently so that a healthy economic base can be maintained.

Management through reclamation and conservation measures is vital to the maintenance of the economic base, especially in agriculture and forestry where resources can be renewed. A breakdown of the land in Montana is shown in figure 6 and figure 7.

LAND USE PLANNING AND MANAGEMENT IN MONTANA

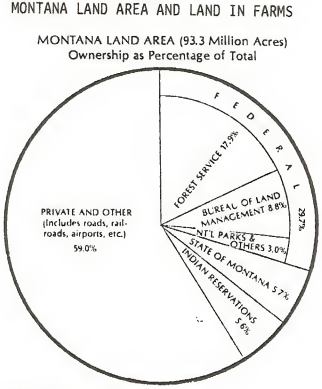
Local governing bodies are charged with conducting and implementing local comprehensive plans, including land use plans. There also is a need to coordinate local land use plans so that a framework for the various state and local agencies involved in some aspect of land management can be provided. To meet this obvious need for land use planning beyond the local level, the State Land Use Planning Bureau of the Montana Department of Community Affairs has developed "Land Use Planning and Management in Montana--A Summary of Selected State Laws" and "Montana's Local Planning Legislation." These two documents include a state land development code and recommendations for an organizational structure to coordinate efforts of state and local agencies involved in land use inventorying, planning, and regulation.

Conversion of Land Use from Agriculture to Other Purposes

There is a concern on the part of public officials and the general public regarding the conversion of prime agricultural land to other uses. A number of bills have been submitted in Montana's legislature designed to slow down such conversion of land. A differential taxation statute ("Greenbelt Law") was passed in 1973. Others have attempted to place moratoriums on subdivision of rural land.

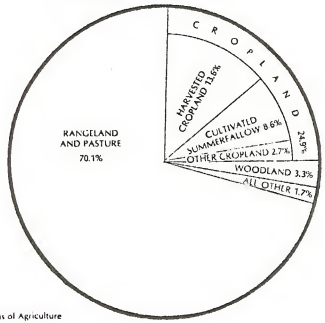
A 1977 poll conducted by the Governor's Office of Budget and Program Planning indicated that two-thirds of the respondents favored preserving more Montana land for food production. Results of the same

FIGURE
MONTANA LAND AREA AND LAND IN FARMS


MONTANA LAND AREA (93.3 Million Acres)
Ownership as Percentage of Total
FEDERAL 29.7%
FOREST SERVICE 17.9%
BUREAU OF LAND MANAGEMENT 8.8%
NT'L PARKS & OTHERS 3.0%
STATE OF MONTANA 5.7%
INDIAN RESERVATIONS 5.6%
PRIVATE AND OTHER (Includes roads, railroads, airports, etc.) 59.0%

Source: "Public Land Statistics, 1976" and Montana Department of Lands.

FIGURE 7
LAND IN FARMS AND RANCHES



Source: 1974 Census of Agriculture

poll indicated that people are strongly opposed to strip mining on highly productive agricultural land. A problem is that the land best suited to agricultural production is also most attractive to those who wish to convert it to other uses.

A 1976 report by the Montana EQC (Environmental Quality Control Council), says the problem is as follows:

> "Agricultural Land Trends. Data accurately reflecting changes in the use of Montana's most important economic resource--soil--are difficult to obtain. The EQC used three major data sources in preparing its Fourth Annual Report: The Natural Resource Lands Digest compiled by the BLM, the U. S. Department of Commerce Census Bureau's Census of Agriculture, and the Montana Soil and Water Conservation Needs Inventory prepared by the Soil Conservation Service. The major deficiencies in these data are that they are not current and they use widely divergent definitions in classifying different agricultural land uses.
>
> "Using the Census of Agriculture classifications, land in agriculture in Montana amounted to 61.2 million acres in 1969--a decrease of 400,000 acres since 1959. This figure excludes some 900,000 acres of BLM-managed agricultural land for which 1959 data are unavailable. The SCS revealed 58.4 million acres classified as cropland, pasture, and range in 1967. This was a 1.9-million-acre increase over their 1958 figure. The BLM reported an additional 8.9 million acres of cropland, pasture, and range under their management in 1967. With higher grain prices over the last few years, the SCS estimates that at least 250,000 acres have been converted from range to marginal cropland since 1969."

The State Department of Highways estimates that 3,500 acres of land of all kinds have been acquired for highway construction during the last decade. Prospecting permits have been issued for an estimated 15,000 acres--most of which has not been mined.

The acres of land converted to urban development is unknown. A 1974 report by the Montana EQC estimated the acreage in subdivided land to be 510,000 acres. Another EQC report estimated that 1,643,412 acres of agricultural land were lost to other uses from 1964-1974. However, the figures do not express the quality of land being converted.

Statewide Land Use Mapping Program

In 1975, Governor Judge designated the Montana Department of Community Affairs as the department to gather and maintain physical

data required by land use planning at the state and local level. One activity of the department has been the development of a land use mapping program. The project has involved the cooperative involvement of several state and federal agencies.

The nine participating agencies include the following: (1) Montana Department of Community Affairs (DCA), (2) Montana Department of Fish and Game, (3) Montana Department of Health and Environmental Sciences (DHES), (4) Montana Department of Highways (DOH), (5) Montana Department of Natural Resources and Conservation (DNRC), (6) Montana Department of State Lands (DSL), (7) United States Bureau of Land Management (BLM), (8) United States Forest Service (USFS), and (9) the United States Soil Conservation Service (SCS).

The maps will identify the areas according to nine land use categories. Urban and built-up areas are those land areas suitable for commercial, industrial, high-density residential, and associated uses. The heavy industry and utility areas include such businesses as feedlots and wood, chemical, and mineral processing plants which require a permit from DHES. Land divided into parcels of more than two acres, but not larger than 40 acres are classified as rural and suburban tracts. Rangeland includes areas which support livestock production and wildlife which have less than 15 percent tree cover. Many of these areas have rather unproductive surface conditions. Commercial forests are those areas managed for commercial timber harvest. Only commercial forest areas on public land are shown. Forest cover areas include those areas unsuitable for commercial timber harvest, but with a cover of 15 percent or more trees. An operating strip or open cut mining area, gravel pits and quarries, tailing and waste areas are classified as mineral extraction areas. Productive cropland is categorized as irrigated cropland, hayland, and pastureland while nonirrigated cropland includes cultivated croplands not under irrigation. Finally, recreational use areas include both public and private use primarily for recreational purposes.

The maps will be in color using a scale of one-half inch to the mile. Physical features will be included on the map along with a brief description of the land use categories.

Subdivision Activity

Changes in land ownership and the pace and extent of subdivision of land in and around our cities and towns, in our agriculturally productive bottom lands, and adjacent to our lakes and streams, have been an issue of increasing public concern. The people of Montana have been accustomed to access to private and public lands for recreational activities. Some fear that recreational subdivision will change this pattern. Others fear the environmental and aesthetic degradation that

inadequately controlled subdivision activity might bring, such as inefficient or undesirable land use patterns, traffic congestion, sanitary problems, wildlife losses on winter range, or high public maintenance costs. The protection of the consumer in his dealings with the subdivider or developer also is a concern. The effect of nonresidents of the state in these subdivisions, both as developers and as consumers, needs study because little is known.

The Montana legislature in the 1971 session made control of subdivisions a public responsibility. The law states: "It is the duty of said board of county commissioners, or the governing body of said city or town, and they shall adopt regulations to provide for the harmonious development of the region of its environs."

The adoption of strong subdivision regulations by local units of government is a necessary first step. But the responsibility is not limited to developers, subdividers, taxing authorities, local government officials, and the planning boards who advise them. Private citizens and the many public and private organizations concerned with the environment are obliged to ensure that the elected officials and other responsible bodies are fulfilling their obligations and that future development is in accord with the public's desired objectives for the future of their area.

Montana law currently has no comprehensive definition of subdivision or comprehensive real estate registration provisions. Also, there is no adequate method for providing the data on subdivision activity necessary for studying these problems or making policy decisions.

In July 1975, Governor Thomas L. Judge designated the Department of Community Affairs as Montana's land use planning agency. His executive order emphasized that, "The fragmentation of land use planning powers within government at all levels. . .has created a situation which calls for improved planning coordination within and between state, local, and federal government." A better understanding of Montana's land use planning laws will contribute greatly toward achieving cooperation and coordination among all planning agencies. Ultimately, improved interagency and intergovernmental cooperation should facilitate better working relationships with the public.

Major problems arising from the lack of control of the "rural estates" type subdivisions developing on urban fringes are: first, the cost of providing services to areas of urban sprawl; e.g., residences on ten-acre parcels result in much higher costs for road maintenance, public sewer and water, school bus, etc. A second cost that is usually less apparent is the removal of these lands from agricultural and wildlife production. Third, poorly planned subdivisions

often are developed on land subject to flooding or unsuitable for septic tanks, and the residents or the public must remedy the mistake at great cost. Finally, the character of the subdivision as it develops alters the value of surrounding lands.

Recreational subdivisions are occurring in both mountain areas and along rivers and lakes. In an area starting around Billings, extending west and then north, there are numerous highly financed mountain subdivisions such as the Big Sky development in Gallatin County, which will ultimately involve 10,000 acres. Big Sky consists of a golf course, ski area, condominiums, and residential home sites. In contrast, the densely developed Ptarmigan Resort area in Whitefish will have a hotel, condominium, and residential lots on a 457-acre tract. There are also numerous subdivisions which offer unimproved raw land, such as two 10,000- to 12,000-acre developments by Reforestation, Inc., located in Musselshell and Powell/Granite counties.

A brief summary of Montana's laws on land use planning and regulation is included in Appendix B of this report.

SOIL AND WATER CONSERVATION NEEDS IN MONTANA

A total of about 2.6 million acres is irrigated in Montana. Only 25 to 30 percent have an adequate irrigation system, with 12 percent of the total acres making efficient use of irrigation water. An additional 300,000 acres receive limited irrigation from waterspreading systems.

Six million acres of cropland and five million acres of rangeland have soil and topography suitable for irrigation. If the added production were needed, delivery systems could be developed and water supplied to a portion of this land.

In recent years, advancements in technology have made possible new methods and have changed the approach to water development and management. Automated surface irrigation and sprinkler systems have reduced labor and solved water application problems. New pipe materials and improved pumping plans have made higher lifts and longer lines practical, thus opening up large areas for potential irrigation development.

Availability of water for pasture and hayland provides opportunities to create a more favorable forage balance while improved stockwater systems offer possibilities to increase production and improve management of Montana's rangeland.

Sediment is a major pollutant in Montana streams and rivers. Sedimentation is caused by sheet erosion, gully erosion, landslides, and accelerated streambank, channel bottom, and wave action erosion.

Rangeland, cropland, suburban developments, mined areas, roads, highways, and railroads all produce sediment. Improper irrigation water management is also a sediment producer.

Highway construction and suburban development can produce sediment at accelerated rates unless proper controls are provided. Urbanizing areas and extensive recreational developments need to provide for erosion control. These developments should include in their planning measures to reduce soil loss during and after construction. Currently, use of conservation measures to control sedimentation is inadequate.

Even though much has been accomplished on private farm and ranch land to control erosion and sedimentation and protect renewable resources, it remains a problem of considerable scope. Over 38 million acres of Montana's 65,500,000 acres of private and state lands need treatment for erosion and sediment control and protection of renewable resources. Needing treatment are 44 percent of the dryland cropland, 50 percent of the irrigated cropland, and 69 percent of the range and pasture lands.

Federal programs for flood prevention and multipurpose water development are available. There is a demand for assistance on large group jobs involving water utilization and storage projects for irrigation purposes.

Individuals and groups considering development of any kind must give careful consideration to soil and land capabilities. To date, 39 million acres out of 93 million have been soil surveyed. The current rate of soil survey has been accelerated to keep pace with the need for interpretation; however, soil surveys are still behind the need.

The Resources Conservation Act

The Soil and Water Resources Conservation Act of 1977 (Public Law 95-192), dated November 18, 1977, directs the Secretary of Agriculture to carry out a national program of soil and water resources appraisal and program development through state soil and water conservation agencies, conservation districts, and other appropriate state natural resources agencies. The Secretary has assigned leadership for these activities through the Assistant Secretary for Conservation, Research and Education to the Soil Conservation Service with appropriate involvement of other USDA agencies in accordance with their delegated authorities.

The official name of the program is the Resources Conservation Act (RCA). It is a companion to the Resources Planning Act, administered by the U. S. Forest Service. In March 1976, the President transmitted to Congress a recommended renewable resources program. At the same

time, the Forest Service published an assessment of the nation's renewable resources. Both these documents were required by the Forest and Rangeland Renewable Resources Planning Act of 1974 (RPA), as amended. The assessment will provide a basis for: (1) appraising ongoing renewable resource programs, (2) evaluating opportunities for the economic development of forest and range resources, and (3) guiding the formulation and direction of renewable resource policies and programs. The program will provide the basis for guiding Forest Service policies, budgets, and on-the-ground activities.

The objectives of RCA are to establish a framework for long-range soil and water conservation policy and to provide for the effective and orderly development of the nation's soil, water, and related resources. The Secretary of Agriculture is required to: (1) continuously appraise the nation's soil, water, and related resources; and (2) to develop and periodically update a program for furthering the conservation, protection, and enhancement of the nation's soil, water, and related resources; and (3) to provide Congress with annual reports which evaluate the program's effectiveness in attaining the purpose of the Act and which compare the budget request with the statement policy in qualitative and quantitative terms.

With a growing demand on soil, water, and related resources, it is apparent that a continuing national resource appraisal is necessary to an effective soil and water conservation program responsive to long-term needs.

PL 95-192 requires an appraisal of the nation's soil, water, and related resources by not later than December 31, 1978 and at each five-year interval thereafter. The appraisal will be carried out through existing cooperative arrangements with conservation districts, state soil and water conservation agencies, and other units of government consistent with their roles and responsibilities.

The appraisal will utilize not only new information collected under the Act, but will also utilize existing data from within USDA and other sources at all levels. An integrated system will be established that is capable of using combinations of resource data to determine the quality and capabilities for alternative uses of the resource base. The system will also be used to identify areas of local, state, and national concerns pertaining to resource use and development and environmental improvement.

Soil and Water Conservation Program Plan

The Soil Conservation Service, through the Secretary of Agriculture, is authorized and directed to develop a national soil and water conservation program plan to be completed by December 31, 1979 and

updated each five years thereafter (Public Law 95-192). The program will provide direction for future soil and water conservation efforts of USDA and will be based on current resource appraisal information.

The program will be developed in close cooperation and participation of the public through conservation districts, state soil and water conservation agencies, and other state and national organizations and agencies. It shall be used as a guide in carrying out SCS activities on private and nonfederal lands at the request of landowners.

STATE OF MONTANA WATER RESOURCES PROGRAM

The Water Rights Program implements Article IX of the Montana Constitution and the Montana Water Use Act, which provide that any water use is a public use and that waters in the state are the property of the state for the use of the people and are subject to appropriation for beneficial use. Existing water rights are to be confirmed through court adjudications; a permit system is administered for new appropriations and changes; and all water rights records are being centralized.

The primary functions of the floodplain management program are to determine 100-year frequency floodway and floodplain boundaries for all streams in Montana and to manage and regulate flood-prone lands and waters to prevent or alleviate flood threats to life and property. As the state's coordinating agent for the Department of Housing and Urban Development's Federal Flood Insurance Program, the Floodplain Management Program assists local political subdivisions in meeting flood insurance eligibility requirements and maintains effective local federal relationships.

The High Plains Cooperative Program (HIPLEX) is a joint venture between Montana and the Division of Atmospheric Water Resources Management of the U. S. Bureau of Reclamation. It is designed to understand the many mysteries of thunderstorms and the weather patterns over eastern Montana and to enhance precipitation from convective storm systems over the semiarid northern High Plains to increase agricultural production. Montana's responsibilities include studying the ecological, social, agricultural, and economic consequences and impacts of additional precipitation; operating an extensive rain gage network; maintaining functional radars; and analyzing meteorological and climatological data associated with the project. (See weather modification page.)

The Water Engineering Program is responsible for managing state-owned water conservation projects and providing engineering and related technical assistance to state water users associations and to other programs within the DNRC. The program's goals are to enhance benefi-

cial uses of water, improve environmental quality, and promote the safety and economic well-being of Montana citizens through engineering projects and services provided to water-related programs.

The Water Planning Program is responsible for ensuring that Montana's interests are represented in interstate compact negotiations, international water apportionment activities, national water policy, and federal water resources programs and projects conducted in Montana. The program projects future water requirements, formulates plans and alternatives, identifies water storage needs and projects, evaluates effects of varying levels of water use, and recommends methods of implementation of water resource programs and projects. The overall objective is to guide the use of water resources within the state.

Water Development Program activities include: (1) administration of the Renewable Resource Development Act, which authorizes loans or grants to governmental entities to develop the state's renewable resources; and (2) provision of technical assistance to proposed water development projects by conducting preliminary feasibility studies.

Program Activities

During fiscal year 1978 the Water Rights Program received 1,735 applications for water use permits--a 48 percent increase over fiscal year 1977--and issued 931 permits. The program received 4,400 notices of completion of ground-water development (of less than 100 gallons per minute), which is an increase of 24 percent over the number submitted during the previous fiscal year. There were 1,900 certificates of water right issued. All records, including permits and certificates, are being microfilmed and computerized for storage, security, and acquisition of statistical data. Field collection of data for the adjudication of existing water rights (those in use prior to July 1, 1973) was completed for 3,200 declarations.

During fiscal year 1978 public hearings were conducted on completed floodplain delineation studies for major streams in Silver Bow County. With assistance from the Floodplain Management Program, 24 communities became eligible for the National Flood Insurance Program during the past year. As of June 30, 1978, 88 Montana communities were participating. Department enforcement of floodplain regulations continued in Cascade County. Ravalli County began a program to locally regulate floodplains.

HIPLEX continued to develop effective management techniques for increasing spring and summer rainfall in eastern Montana. The results from fiscal year 1978 have provided a greater knowledge of eastern Montana's weather systems which will allow initiation of the second

portion of the experiment--the investigation of convective cloud systems. The results of the biological investigations have shown how frequency, amount, and season of rainfall can affect native range grasses, cereal grains, and other aspects of the high plains ecosystems.

A report on potential hydroelectric power for state-owned dams (January 1978) was prepared under the Water Engineering Program. Water deliveries were made to approximately 14,000 acres on the Daly Ditches project; a construction program to upgrade the canals and canal structures on the project was continued. Construction projects completed during fiscal year 1978 include a new headworks for Livingston Ditch and several water control structures on the Daly Ditches project. The largest flood of record was experienced at the Tongue River project, which was damaged, but did not fail. Repairs are planned for fiscal year 1979. Design for repair of the Nevada Creek spillway was begun, but was halted when the spillway was found to be much too small to meet current dam safety standards. A preliminary design for enlarging and improving the Cooney spillway was completed. A four-year program was begun to inspect all dams in the state whose failure could cause loss of life. The Water Engineering Program also assisted the Department of State Lands in preparation of an environmental impact statement on the Spring Creek coal mine development near Tongue Reservoir. Negotiations for easements for a railroad to the mine were begun. A preliminary environmental review was completed on the Department of Fish and Game application to build a northern pike rearing pond at Tongue Reservoir. The rearing pond has since been built.

Water planning activities included formal hearings that covered water reservation applications in the Yellowstone River Basin. Recommendations for action on these applications regarding both water quantity and priority were made to the Board of Natural Resources and Conservation. Potential water storage sites were identified in the Big Hole River Basin as directed by the 45th Legislative Assembly. Preliminary groundwork was established to discuss possible joint water storage development with the Crow and Northern Cheyenne Indians and the State of Wyoming in the Tongue and Powder River basins.

Montana's interests were represented to the Western States Water Council, Pacific Northwest River Basin Commission, Missouri River Basin Commission, Interstate Conference on Water Problems, and the Water Resources Council concerning national water policy, the 160-acre irrigation limitation on federal water projects, state control over federal water resource activities, and federal and Indian reserved rights. Activities leading to eventual formulation of a water plan for the Missouri River Basin were initiated through the Missouri River Basin Commission. International negotiations regarding water apportionment of the Poplar River between Canada and the United States were continued through a board appointed by the International Joint Commission. Coordination with local interests regarding a multipurpose water storage project recommended in the Flathead River Basin Water Plan led to a

local application for a renewable resource development grant to partially fund the project. A report entitled, Clark Fork of the Columbia River Basin, A Cooperative Study (June 1978), describing the alternatives for water resource development and protection in that basin was prepared in cooperation with the U. S. Department of Agriculture.

In connection with water development activities, the Legislature approved five grants for a total of $1 million and one loan in the amount of $2 million, as authorized by the Renewable Resource Development Act. Technical assistance was provided for several proposed water projects.

WATER RIGHTS FOR IRRIGATION

No one individual in the state owns water. Any individual can use water as long as he follows the provisions of the law and can prove he is putting the water to beneficial use. No one can waste or divert water maliciously. A water right in Montana gives individuals the right to use water when they need it if it is available and it will not adversely affect prior water right users.

In 1973 the Water Use Act was passed by the Montana Legislature. This Act established a ". . .uniform centralized system and prescribed methods for the acquisition, administration, and determination of water rights." The Act established a permit system for all water appropriated after July 1, 1973. The Montana Department of Natural Resources and Conservation was given the responsibility of administering the current program.

The Department has been directed to proceed under the adjudication process, using all existing records, investigation, and court findings to determine to whom the water rights belong.

The current adjudication process is being based on two legal principles. First, water use is limited to that amount that can be put to beneficial use. Second, the first person to use the water established the first right to beneficial use. First in time is first in right.

Three kinds of water rights such as use rights, filed rights, and decreed rights established before 1973 are being considered as valid water rights whenever appropriate evidence can be presented.

The current adjudication process has several features which were not part of the past procedure. Significant differences include:

1. Adjudication will be done in a systematic fashion, basin by basin.

2. All parties will be involved in the proceeding.

3. Water right claims will be investigated before the decree is made.

4. Centralized records will be established containing every valid water right.

The systematic statewide adjudication procedure includes 11 significant steps which are taken in sequential order.

1. The Department designates a water basin to be adjudicated.

2. All water right landownership records are gathered and carefully analyzed.

3. A proposed order of adjudication is submitted to the district court and all claimants are asked to declare their water rights.

4. The court order is published and sent to all landowners asking them to declare their water rights in writing.

5. The landowners are given one year to declare what they believe their water rights to be in a sworn, notarized statement.

6. Field investigations are conducted by the Department in cooperation with the water users. Ownership, beneficial use, amount, priority date, location, place and means of diversion, etc., are determined for each claim.

7. Following the investigation, recommendations which describe each water right are established by the Department.

8. The court then issues a preliminary decree based on departmental recommendations, evidence presented, and any data the court deems necessary.

9. Any preliminary decree may be challenged in court by the water user.

10. Following appeals and objections, the court issues a final decree. The decree is final and conclusive.

11. The Department issues a certificate of water right to each owner. The specific details relative to each water right are recorded in the statewide records system.

THE SNOW SURVEY PROGRAM

Montana's first snow surveys were made in 1922. The program has grown and currently snow measurements are taken at 250 sites by personnel of the Soil Conservation Service and many federal, state, and private cooperators. The snow courses are measured at different times during the year. Most of the courses are measured near the first of March, April, and May.

Data gathered are used to forecast streamflow at over 70 locations throughout Montana. The forecasts based on the snow surveys are used by numerous agencies and individuals for many purposes; i.e., power generation, flood control, reservoir operation, and crop planting.

In recent years remote sensors have been placed at selected locations and used to measure and evaluate the annual snowpack. The remote sensors are part of a new program called SNOTEL (SNOw survey TELemetry). By implementing the new program, the number of manual snow surveys can be greatly reduced without affecting the accuracy of the forecasts; in fact, accuracy will be improved. Estimates of manual readings will be made at the first of each month on the basis of near-real-time data. Snow water content, total precipitation, and air temperature data will be received twice daily. Present plans call for 63 SNOTEL sites in Montana and over 500 sites in the western United States.

SALINE SEEPS

Montana's dry cropland is one of its most valuable natural resources. Saline seeps are currently threatening some of these lands. In 1978 the Soil Conservation Service (SCS) estimated that 200,000 acres of prime cropland have been lost and the rate of increase is about 10 percent per year. Also, the SCS has labeled saline seep the number one conservation problem in Montana. A saline seep is a land area which is salty and too wet to farm for all or part of the growing season. It is caused by excess water moving below the root zone to a downslope location where it returns to the soil surface to evaporate. During evaporation, soluble salts collected from the deep subsoil and substrata are deposited on the soil surface. Impermeable or slowly permeable layers beneath the root zone trap the water and conduct it downslope where it returns to the surface to form a saline seep.

The alternative crop/fallow system allows water to move through the soil profile during the fallow period in some years. Recent evidence indicates that poor surface drainage is also causing some saline seeps.

Limited research on the problem was initiated in the state in 1969 by the Agricultural Experiment Station and the Agricultural Research Service. Additional funds were appropriated in 1974 to the Department of State Lands for additional research and educational programs on saline seep. These funds will terminate in 1979. Results are as follows:

1. Flexible cropping, a cropping system in which the decision to plant is based on the amount of stored soil water, or annual cropping will halt or reduce the spread of saline seep. In instances where the impermeable layer is less than six feet from the soil surfaces, flexible or annual cropping will probably eliminate the saline seeps.

2. In areas where the impermeable layer is greater than six feet, deep-rooted perennial crops such as alfalfa seeded on the recharge areas will eliminate the saline seep. Under some conditions, shallower-rooted crops such as sweetclover, sainfoin, cicer milkvetch, wheatgrasses, etc., will eliminate, prevent, and halt the spread of seeps.

3. Some saline seeps appear to be self-perpetuating. These areas grown vigorous stands of kochia (Kochia scoparia) annually. When this weed growth stands over winter, it traps large quantities of snow which adds excess water to the saline seep area. This can be prevented if the kochia is cut for hay. Some saline seeps are located in depressions and on north slopes where snow accumulates to add extra water to the soil profile and aggravate the problem. Where possible, it now appears that wheatgrass (especially tall wheatgrass) should be seeded in saline seeps. The grass should be removed for hay so it does not trap snow. It would also reduce the kochia weed problem on the surrounding land.

4. Since snow accumulation is believed to be responsible for certain saline seeps, grass barriers, annual crop barriers, and standing stubble should be a valuable way to trap snow and prevent it from accumulating in deep drifts. This would be especially beneficial for annual or flexible cropping.

5. If poor surface drainage (potholes) is causing certain seeps, improving the surface drainage should reduce the outbreak and spread of saline seeps.

6. Saline seeps are not transitory. There is an undergound pool of water (water table) beneath each saline seep. In spite of the fact that 1971, 1972, and 1977 were dry years, water tables beneath saline seeps receded very little.

Farmers and ranchers are aware of the problem, but cropping system changes to reduce or eliminate the problem will come very slowly. The Montana Cooperative Extension Service Cropping Systems Program must be kept alive to work with and educate producers in changing their cropping systems. In addition, research by the Agriculture Experiment Station and USDA in the areas of alternative crops, minimum and no-tillage methods, crop rotation, weeds, insects, and diseases must be supported so problems can be anticipated and solved. Thus, flexible cropping will become more efficient and prevalent in Montana.

FIELD WINDBREAKS

Field windbreaks consist of one or two rows of trees, shrubs, or various types of grasses planted across fields at regular intervals. Their primary purpose is to reduce wind erosion and to catch snow to increase moisture. To date, Montana has over 2,850 miles of such plantings giving protection to more than 114,000 acres of cropland. It is estimated that this represents about 50 percent of the total needs in the state. The average rate of establishment over the past few years has been about 70 miles per year. Most windbreaks are established in the eastern and northern counties.

Tall wheatgrass barriers to reduce erosion and to conserve moisture have been established on 6,000 acres of problem soils in northcentral Montana. This new practice may accomplish essentially the same objectives as woody windbreaks. Research has been conducted at the Northern Plains Soil and Water Conservation Station at Sidney at off-station sites in northeastern and northcentral Montana for several years. Conserved moisture will support more intensive cropping and hopefully will help control the saline seep problem.

FARMSTEAD AND FEEDLOT WINDBREAKS

Farmstead and feedlot windbreaks are belts of trees and shrubs about 100 feet wide planted on the windward side of farm buildings and feeding areas. They provide many benefits such as protection for both humans and animals from winter wind and blowing snow, a home for wildlife, and beautification of the landscape.

Greater emphasis is needed to explain to farmers the importance of establishing woody plantings for wildlife habitat and aesthetic purposes.

It is estimated that about 40 percent of the farmsteads and feedlots in need of protection now have windbreaks of some type. This amounts to about 8,400 individual farmsteads. Some of these plantings are old and in need of replacement and renovation to improve their

quality. Most of these plantings occur in the dryland areas east of the Continental Divide. About 200 to 300 acres of farmstead and feedlot windbreaks are planted each year on 100 to 150 farms and ranches.

RECREATION AND TOURISM IN MONTANA

Tourism and recreational activities are becoming a significant part of the state's economy. Montana's forest and wildlife resources continue to attract vacationers both from within and without the state. The problem becomes one of establishing an appropriate balance between the purely recreational aspects of the resources and the use of the resources as an input to a basic industry.

Tourism and recreation rank among the state's major industries and all indications point to growing numbers of recreationists. With many private lands of prime recreational value being broken up and sold in small parcels (see subdivision activity above), state and federal agencies will be hard-pressed to accommodate the growing number of Montanans and out-of-state visitors.

Over 60 percent of Montana's land area, or approximately 59,000,000 acres, is privately owned. Even though progressively less private land is being made available to recreationists, private land still provides a great deal of recreational use. Thirty-four million acres of public land, the 16 million acres in national forests, 8 million acres under Bureau of Land Management administration, and 1.5 million acres in national parks are the state's and nation's open playgrounds.

The Department of Fish and Game provides many key access areas to recreational lands and waters as well as other recreational facilities. State parks, game ranges, and game management areas provided and managed by the Department also add to Montana's outdoor recreation picture. In all, the Department of Fish and Game controls almost 250,000 acres of land.

Montana also has over a million acres under water. Large lakes and reservoirs cover about 982,000 acres. Under proper management, the many lakes and reservoirs provide wildlife habitat, fishing, and recreation. Some serve multiple purposes such as recreation, livestock water, and irrigation. Many miles of streams support some of the nation's finest fishing and floating waters.

As recreational activity increases each year, the Forest Service through the Forest and Rangeland Renewable Resources Planning Act of 1974 continues to provide recreation opportunities. Montana is part of the Northern Region of the National Forest System which includes northern Idaho, Montana, North Dakota, and northwestern South Dakota.

Montana had 7.5 million recreation visitor days in 1977. This is expected to increase to 11.5 million by the year 2015. Our recreation sites will accommodate 30,290 now and will be increased to accommodate 39,000 by 2015. Operation, maintenance, and planning costs amounted to $3.3 million in 1977 and will increase to $5.7 million by 1980.

In general, the role of the Forest Service in recreation is to cooperate with private interests, local and state governments, and federal agencies by sharing resources and capabilities; developing administering, and protecting Forest System lands in a manner that provides quality recreation; and conducting research to aid effective recreation management.

WILDLIFE IN MONTANA

Fertile agricultural lands have always been important providers of fish and wildlife habitat. The farmers' and ranchers' use of land and their management practices affect the entire local plant and animal complex.

Recreational use of private land by the public lies with the landowner. The amount of private land available to public use is shrinking at an alarming rate. Division of many prime recreation areas into small ranchettes and residences accounts for some of the loss, while posting of private property has shut hunters, fishermen, and other recreationists out of thousands of acres of private land and, in many cases, has closed some access points to public lands.

Landowner-sportsmen relationships are a constant concern to all Montanans because each year incidents seem more frequent and less appetizing. However, there appears to be positive action to remove conflict and smooth landowner-sportsmen relations.

Ten big game species are found in Montana. Several species are on the endangered species list, including the black-footed ferret, peregrine falcon, bald eagle, northern Rocky Mountain wolf, and whooping crane. The grizzly bear is considered a threatened species. There are 10 species of upland game birds. Fourteen species of cold water game fish challenge the angler. Forest Service plans call for increasing the quality and quantity of winter range for deer and elk on the state's national forests through a controlled burning program of 20,000 acres. More research is planned that will aid in protecting and managing the endangered and threatened species.

Status and Goals of the Fish and Wildlife Program

More and more residents and nonresidents are fishing and hunting in Montana. In 1974-75, 262,000 or about 35 percent of the state's total residents, or 63 percent of those between the ages of 15 and 65, purchased fishing and hunting licenses. Between May 1, 1974 and April 30, 1975, 1,112,000 hunting and fishing licenses were purchased. In addition to hunting, 43 percent of Montanans between 16 and 60 participate in wildlife viewing. All trends indicate the participation rate will continue to increase during the next 15 years.

During 1975 sportsmen spent an estimated 5,200,000 days of hunting, fishing, and trapping in Montana. It has been estimated that, excluding license revenues, two to eight percent of the state's total income may be accrued through recreational resources. Assuming that a hunter or fisherman spends $20 per day, over $100,000,000 may be generated annually in the state's economy. It is projected that by 1980, 6,500,000 days of hunting and fishing will take place in Montana.

Statewide Comprehensive Outdoor Recreation Plan (SCORP)

Outdoor recreation is an accepted part of the lives of most Montanans. Much of the outdoor recreation that Montanans enjoy involves the state's fish and wildlife population. The Fish and Game Department is the legally designated manager of our wildlife resources on state and federal lands in Montana. Because of the lack of control over land use practices in the state, the job of the Department is a difficult and complex one. The SCORP plan is an effort to increase the Department's effectiveness and efficiency in the years ahead.

The activities of the Department are organized under two major programs--the wildlife program and the fish program. The major elements of the fish program include game fish streams, game fish lakes, and nongame fish. The Parks Program includes numerous activities that produce, enhance, and manage recreation. The major elements of this program are categorized under activity structure and output elements.

The 1978 SCORP plan is based on the overall goal of the Department--"To benefit the people of Montana and visitors with the optimum outdoor recreational opportunities; emphasizing the tangible and intangible values of wildlife and the natural and cultural resources of aesthetic, scenic, historic, scientific, and archeological significance, in a manner: (1) consistent with the capabilities and requirements of the resources, (2) recognizing present and future human needs and desires, (3) ensuring maintenance and enhancement of quality of the environment."

With this in mind, the plan describes projected wildlife, fish, and recreational resource status through 1990. Overall goals have been developed for each major element of the wildlife and fish programs. Finally, five-year objectives are stated for the major tasks of the park program.

RAD Wildlife Subcommittee

This 25-member subcommittee was activated two years ago to study wildlife issues in the state. The committee has identified a number of issues that are worthy of consideration. Attention during 1977 was devoted to landowner-sportsmen problems and considered the following issues:

1. Access to public lands
2. Land acquisition for sportsman use.
3. Sportsman (hunter) responsibilities
4. Enforcement of game laws
5. Landowner responsibilities
6. Extra fees for big game licenses
7. Improved hunter distribution
8. Trespass and spotlight violations

Landowner Relations/Sportsmen Access Advisory Council

In late December 1977 an advisory council was created by the Montana Department of Fish and Game to seek outside help in attempting to resolve landowner/recreationist conflicts. The 13-member council will, by law, function until November 30, 1979. The official purpose of the council is: "to advise and assist the Montana Department of Fish and Game and the Fish and Game Commission with establishment of a program designed to improve relations between sportsmen and landowners of private and public lands to access by sportsmen." Briefly, the council's concerns and recommendations are as follows:

Providing enforcement authority for additional departmental personnel during hunting season.

Establishing a toll-free number that can be used by sportsmen and others to report hunting and fishing violations. The number

(1-800-332-6117) functioned around the clock during the 1978 hunting season.

Encourage sportsment to increase their "self-policing" activities.

Continue the Department's information efforts.

Develop a property damage reimbursement program that would be funded by sportsmen and approved by the legislature.

Investigate the possibility of providing landowners incentives to private landowners who develop wildlife habitat and access.

Provide big game depredations on private property to protect livestock feed.

Provide hunting by permission signs and landowner permission booklets free of charge.

Examine the Department's licensing system.

Examine trespass laws and their enforcement.

Make an effort to solve the problem of access to federal and state lands across surrounding private lands.

MONTANA'S FOREST RESOURCE

Natural resources can rarely be dealt with as separate entities. This is especially true of forest resources. The forests affect the basic resources such as air, water, and soil. From these evolve the wildlife habitat, aesthetically pleasing environment, the forest industry, and the quality of life associated with trees, mountains, and open spaces.

About 23 million Montana acres are forested. Forest land has a very significant role in Montana's economy. The timber industry provides employment and products that improve our standard of living. The forest land that is suitable and available for timber production is called commercial forest land. Commercial forest land makes up about three-fourths of the total forest land and supports a wood products industry second only to agriculture in importance to Montana's economy. Recent data on the ownership of Montana's forest land is shown in table 12.

TABLE 12

OWNERSHIP OF COMMERCIAL FOREST LAND IN MONTANA

Owner	Acres Forest Land		Acres Commercial Forest Land	
Small Private	4,844,410	(1967)	3,150,000	(1970)
Large Industrial	1,720,000+	(1975)	1,590,000	
Total Private	6,564,410+		4,740,000	
State	491,265	(1974)	421,000	(1975)
National Forest	14,555,400	(1970)	7,944,700	(1974)
Other Public (1970)	1,577,800+		1,324,700+	
Total Public	16,624,465		9,690,400	
STATE TOTALS	23,188,875+		14,430,400+	

Source: RARE II report

In addition to supplying timber as shown in table 13, these areas should be utilized or improved to contribute to nonforest uses such as water, forage, wildlife, and recreation. Action to improve development of the timber industry falls into three general categories: (1) improving the growth rates, (2) reducing mortality, and (3) improving utilization and marketing.

In 1977 the Montana Woodland Council agreed to create a task force to prepare a report relative to forest management and timber harvest. In reference to what could be done, the council stated: "In the Rocky Mountains, the major factor limiting harvest, outside of multiple use constraints, is the volume per acre of present stands. This volume cannot be affected to any great extent in the short run by intensive management. Thus, there appears to be little opportunity to offset reductions in the land base by intensive timber culture in the coming decade. Two other factors, however, could be considered here. The first factor involves reducing the loss of present volume to insects, diseases, and fire trhough increased prevention and salvage as well as improved utilization. The second involves using very short rotations (40 to 50 years) to fill in gaps in the nondeclining timber harvest. Unfortunately, this alternative may not be applicable to national forest lands because of the National Forest Management Act of 1976."

The use of waste and residue has potential for use as energy to produce electrical power. Advancement in technology and shortages in

nonrenewable resources could make it possible to utilize this source of energy. New manufacturing processes have provided better utilization of chips and wood particles in various "particle board" products.

TABLE 13

MONTANA TIMBER HARVEST--CALENDAR YEARS 1972-1977 (M Board Feet)

Source	1972	1973	1974	1975	1976	1977
FEDERAL LAND						
USFS	558,003	564,131	495,341	444,542	470,361	498,862
BIA	82,773	98,013	82,663	43,539	58,958	45,986
BLM	4,339	2,605	3,298	4,847	4,474	4,095
TOTAL FEDERAL LAND	645,115	664,749	581,302	492,928	533,793	548,943
PUBLIC LAND						
Montana Division of Forestry	31,857	23,259	7,581	5,271	18,675	18,825
TOTAL PUBLIC LAND	676,972	688,008	588,883	498,199	552,468	567,768
PRIVATE LAND						
Nonindustrial		215,709	229,679	148,670	231,076	218,198
Industrial		213,706	269,721	352,233	338,827	338,611
TOTAL PRIVATE LAND	406,628	429,415	499,400	500,903	569,903	556,809
TOTAL CUT	1,083,600	1,117,423	1,088,283	999,102	1,122,371	1,124,577

Source: Larin Hearst, S&PF, USFS, Missoula Division of Forestry, DNRC.

Many factors working together have seriously reduced the amount of timber harvested. Fire, insects, and disease destroy approximately 780 million board feet of timber annually. In general, fire causes minimal loss due to the effectiveness of fire protection systems. Fires left unchecked on state and private lands destroy resources and could result in loss of life. Subdivisions which do not provide designed fire prevention measures compound this problem.

The greatest loss is caused by insects and disease. The western spruce budworm (see table 14) continues to be a major pest in the region, defoliating millions of acres. The mountain pine beetle is the

major killer of lodgepole pine and ponderosa pine. Some limber pine and western white pine have been killed by the beetle. Other insects causing losses in Montana include the pine needle miner, Douglas-fir beetle, and the western balsam bark beetle.

The dwarf mistletoes are still a major group of damaging organisms in the region. However, several other diseases are causing timber losses in Montana. When conditions are right, damage is being caused by comandra blister rust in lodgepole pine; butt and root rot in central Montana; annosus root rot in ponderosa pine; and the European elm bark beetle in several eastern Montana communities. Management practices and control methods utilizing insecticides and cutting are being studied in an effort to reduce these losses.

Damage by air pollutants continues in some areas of the state. Aluminum fluoride from the smelter at Columbia Falls has killed approximately 60 percent of the mixed conifer stands five miles downwind of the plant. Growth loss on the living trees in the area exceeds 35 percent.

Sulphur oxides, mercaptans, and hydrogen sulfides emitted from the Missoula pulp mill are causing damage to Douglas-fir and ponderosa pine in the area. Future expansion of the mill will probably increase emissions.

Emissions of sulphur dioxide from the copper smelter at Anaconda have damaged over 300 million acres of nearby ecosystems. Sulphur oxides and fluorides emitted from two coal-fired electric power generating plants in eastern Montana have caused an increase in the death of ponderosa pine in the area. Additional generating plants will probably cause increased damage.

Future land management will affect the amount of harvest that can occur and the sustained timber resource. Private landowners must practice more intensive management if present cutting levels are to be sustained. Montana needs an intensified program of timber management and utilization to get better use of our timber resources. Many good timber-producing sites are occupied with cull (or dense) stagnant stands that cannot be used in today's industry.

Timber stand improvement and reforestation programs are under way by the Forest Service. The Service reforested and improved 20,138 acres in 1977. This acreage will be increased to 70,783 acres in 1980 and decreased to 26,013 acres in 1985. This activity, completed under the Forest and Rangeland Renewable Resources Planning Act of 1974, is estimated to result in a timber sale increase from 548 million board feet in 1977 to 775 million board feet in 1980. Costs for the improvement program will cost $23.1 million in 1977 and $28.3 million in 1980. It is estimated that program costs will amount to $21.6 million by 1985 after the present reforestation programs have peaked.

TABLE 14

ACRES OF AERIALLY VISIBLE[1] WESTERN SPRUCE BUDWORM DEFOLIATION IN THE NORTHERN REGION FROM 1976 to 1977

Unit[2]	Acres of Visible Defoliation 1976	1977	Increase or Decrease in Size of Infestation (Acres)
NORTHERN IDAHO			
Clearwater National Forest Area	358,070	286,407	- 71,663
Idaho Panhandle National Forests Area	190,591	176,454	- 14,137
Nezperce National Forest Area	107,050	184,315	+ 77,265
SUBTOTAL	665,711	647,176	- 8,535
MONTANA			
National Forest			
Beaverhead	250,427	173,250	- 77,177
Bitterroot[3]	413,641	451,495	+ 37,854
Custer	5,155	7,370	+ 2,215
Deerlodge	223,666	183,207	- 40,459
Flathead	99,801	54,527	- 45,274
Gallatin	286,325	427,990	- 141,665
Helena	313,161	462,979	- 149,818
Kootenai	9,685	20,029	+ 10,344
Lewis and Clark	5,927	116,499	+ 110,572
Lolo	820,330	947,941	- 127,611
Indian Reservation			
Flathead	68,156	129,438	+ 61,282
SUBTOTAL	2,496,274	2,974,725	+ 478,451
WYOMING			
Yellowstone National Park	114,572	79,330	- 35,242
GRAND TOTAL	3,266,557	3,701,231	+ 434,674

[1]Aerially visible defoliation occurs when 25 percent or more of the current foliage is consumed. [2]Infested acreage on national forest maps includes all federal, state, and private lands. [3]A portion of the Bitterroot National Forest is in northern Idaho.

Source: U. S. Department of Agriculture, Forest Insects and Disease Conditions--1977 in the Northern Region, Report No. 1, July 1978, p. 4.

THE NATIONAL FOREST MANAGEMENT ACT OF 1976

The focal point of the Act is forest management. It is an integrated, comprehensive land management plan for each national forest which will be revised at least every 15 years and which considers all forest resources. It is considered as landmark legislation in importance to the Forest Service.

The Act itself will serve as a guideline to ensure that economic, environmental, and ecological considerations are consistent with multiple use and sustained yield. As a timber management tool, the Act provides for the following:

1. Limit timber harvesting to a quantity equal to or less than a quantity which can be removed annually on a sustained yield basis.

2. The identification of areas not suitable for timber production.

3. Establish silvicultural standards which will not preclude practices in timber stand improvement, salvage operations, and removal of trees for multiple use purposes.

4. Establish guidelines for the practice of clearcutting.

5. Repeal of that part of the Organic Act that the courts interpreted to mean no timber could be sold that was not dead, physiologically mature, or of large growth.

6. Appropriation of funds for reforestation and timber stand improvement.

7. Establish procedure for conducting timber sales and procedure for reestablishing vegetative cover on temporary roads used for timber harvest.

The Act also provides for interdisciplinary public participation in developing management plans. Advisory committees will be established to ensure public review. National forests now have statutory status and will remain permanent unless otherwise decreed by Congress.

WILDERNESS IN MONTANA

Montana has 2.7 million acre of national forest land in six wildernesses and four primitive areas. In addition, there are other areas identified as being roadless and essentially undeveloped. These areas that have wilderness characteristics and were selected as meeting

certain criteria will receive further study. Through the public involvement process, these areas will be added or taken out of the wilderness system. New additions are likely to exceed one million acres.

RARE II

RARE II is an acronym for "Roadless Area Review and Evaluation." The entire effort is an attempt to obtain a balance in public land use. A roadless area is defined as an area in the national forest system owned by the American public which does not yet show significant marks of human development--roads, buildings, evidence of tree culture. At the present time, 2.7 million acres of Montana's national forests are classified as wilderness or primitive areas. Montana has about 5.8 million acres in 155 roadless areas.

Roadless areas have become the center of national as well as state controversy. There are many choices as to the management of our forest lands. They may be used for timber harvesting, mining, wildlife habitat, campgrounds, ski areas, wilderness, or a combination of these and other uses. There are two general opinions. First, some feel the areas should remain untouched and become part of a national wilderness preservation system. Second, others feel the areas should be opened to development. RARE II was designed to gather data to help settle the controversy.

RARE II is built upon a less extensive effort called RARE I, completed in 1973. The new initiative is divided into four phases--the last phase to be completed in January 1979.

The first phase was an extensive planning stage and was completed in the fall of 1977. The public was involved in a review of the new inventory. People were asked to suggest additions and deletions as well as suggest criteria for use in evaluating areas for wilderness and nonwilderness use. Phase two was devoted to identifying roadless areas in the national forest system. The Forest Service concluded four major measurable characteristics to determine the character and scope of the national wilderness system. They are:

a. Representation of major land forms.

b. Representation of the nation's major ecosystems.

c. The presence of certain wildlife which the public perceive as being associated with wilderness.

d. Distribution of wilderness for better accessibility to the nation's population.

Costs and impacts of the wilderness designation were applied to the inventory. The variables used included the effect on timber resources, energy resources, mineral resources, effects on motorized or intensive recreation use, and effects on wildlife management programs.

During phase three, numerous alternatives were developed for public consideration. The various alternatives will consider the effects of adding all, part, or none of the roadless areas to the wilderness system. The alternatives fall into one of three categories: (1) those that should be recommended to Congress for wilderness designation; (2) those that should be managed for nonwilderness use; and (3) those on which decisions should be deferred to allow additional study. Phase four--the final phase--will allow for a record round of public responses. The final environmental impact statement will be completed by January 1979. RARE determinations will have a definite effect on the management of the intermingled state and private lands.

RANGELAND AND GRAZABLE WOODLAND

Montana is the fourth largest state in the U. S. with an area of approximately 94 million acres. Included in this vast expanse are large areas of forest land, cropland, and rangeland.

Range, as it is generally called, represents 71.2 percent of the total land areas. Range includes 54 million acres, and grazable woodland, 11.5 million acres--for a total of 65 million acres of private, state, and federal rangeland. This range is the primary resource for the state's livestock production. Montana's livestock industry produced $420,680,000 in 1975. In addition, the state's range provides habitat for wildlife. Today, range is being recognized for its many other contributions to the economy. Examples are water production, recreation, aid in erosion and sediment control, aesthetic value, and natural beauty.

Forage production from these lands is now just over 50 percent of its capacity due to past economic pressures and errors in management during the last three-quarters of a century. Range management specialists estimate that this condition may be reasonably increased by one grade, such as from fair to good. This increase, when converted to dollars, could represent an increased income of $1.40 per acre to the rancher. A much larger economic effect will be felt as the recreation and wildlife range resources are developed to their known potential. Not all people realize the kind of intensive management required to maintain a viable livestock industry. All persons affected must be kept informed of the latest techniques for improving the range for optimum productivity while conserving soil, water, and vegetation.

In 1970 a movement began to coordinate range management efforts, the result of which is the Montana Rangeland Resource Program. This program initiated from a request by Hill County Conservation District to the State Conservation Commission for a study of the rangeland of Montana. The Commission created a task force made up of ranchers, agency people, and members of private organizations. Local county committees for rural development brought together ranchers and agency personnel to develop the original range inventories. The task force studied the inventories and came up with a program of goals and objectives that are to be attained in a ten-year period. This is to be done by coordination, cooperation, and education. The program was presented to the 42nd Assembly of the Montana Legislature where it was implemented by joint resolution and financed through the State Conservation Commission. The program is now incorporated, by executive reorganization, into the Department of Natural Resources and Conservation.

In 1972 the Montana Rangeland Resource Program developed a grass roots county-by-county organization of local rangeland leaders. This was done by holding meetings in the state for persons who were interested in range. The meetings were held to inform the people of the program and its goals and objectives and concluded with a request that perhaps some organization might wish to inaugurate the program in its county and appoint a person to act as the county rangeland leader. Leaders were appointed under the sponsorship of the conservation districts, grazing districts, two chambers of commerce, and one private individual. Several counties have appointed committees to handle the Rangeland Resource Program. Examples of the activities of these committees are: supporting the designation of a state grass, the involvement of range in planning both city/county, county, and regional programs. Many of the major agencies and bureaus have given their full support to the program and are now contacting the county rangeland leaders to offer their cooperation and assistance in their programs.

Montana is currently part of a regional program funded under the Old West Regional Commission project to improve the rangeland of the state. Long-term range improvement goals are:

1. Eighty percent of the pastures and native ranges will be operated under some form of intensive management planning.

2. Fifty percent of the native range will be in excellent condition and 30 percent in good condition.

3. Native range and pasture will produce 40 percent more usable forage.

4. Eighty percent of the native range will have stockwater fully developed, and the remaining 20 percent will have water development initiated.

5. Recreational uses of range will be increased.

6. The wildlife habitat on native range will be improved to provide a more stable wildlife popualtion.

Range improvement is a slow process. The regional approach to range improvement has and is continuing to result in concerted efforts to solve specific problems. "The aim is to educate and obtain cooperation from rural and urban people, the landowners, users, and administrators involved with range." Various individuals, groups, and activities have been implemented to accomplish the aim of the program.

1. Regional range coordinator is responsible for the overall coordination and implementation of the program.

2. A state range coordinator is responsible for the coordination and implementation of the program in his respective state.

3. A state advisory board will advise the state coordinator on the implementation of the state program.

4. A regional executive committee consisting of two members from each state advisory board will advise the regional coordinator. Funding through the Old West Regional Commission will continue through July 1979.

5. Youth educational activities will be initiated to provide additional opportunities for young people to learn about our range as a natural resource. Instructional manuals, range camps, and state and regional contests are examples of activities being initiated.

6. Adult workshops and short courses are examples of activities held for producers, agricultural lenders, and interested businessmen.

7. An informational program is designed to keep the public informed about the program.

8. A rangeland inventory will be published to provide an update of estimates of acres, conditions, and treatment needed to meet the goals of the program.

In recent years, ranchers have taken a more critical look at their range resources, and the condition of the range has generally improved. As production costs continue to rise, more improvement is needed in order to: (1) increase livestock income, (2) increase property values, (3) increase tax income to the area, (4) reduce erosion costs, and (5) reduce pollution control costs. Table 15 is designed to help describe the current condition of Montana's rangeland resource.

TABLE 15
MONTANA RANGELAND RESOURCE AND RANGE CONDITION--1976

County and District	Land in Range	Rangeland Below Good Condition	Rangeland in Good to Excellent Condition
	---------Percent----------		
NORTHWEST			
Deer Lodge	35	60	40
Flathead	6	70	30
Granite	24	50	50
Lake	26	65	35
Lincoln	3	60	40
Mineral	1	70	30
Missoula	8	70	30
Powell	31	60	40
Ravalli	10	70	30
Sanders	15	65	35
NORTHCENTRAL			
Blaine	84	55	45
Choteau	52	45	55
Glacier	63	40	60
Hill	44	55	45
Liberty	41	50	50
Phillips	89	45	55
Pondera	39	50	50
Teton	45	45	55
Toole	50	50	50
NORTHEAST			
Daniels	42	38	62
Dawson	72	40	60
Garfield	93	45	55
McCone	70	35	65
Richland	64	40	60
Roosevelt	49	29	71
Sheridan	41	60	40
Valley	76	65	35

TABLE 15--
MONTANA RANGELAND RESOURCE AND RANGE CONDITION--1976 (continued)

County and District	Land in Range	Rangeland Below Good Condition	Rangeland in Good to Excellent Condition
		- - - - - - - - Percent - - - - - - - -	
CENTRAL			
Broadwater	62	50	50
Cascade	40	45	55
Fergus	64	50	50
Golden Valley	83	40	60
Judith Basin	50	55	45
Lewis & Clark	38	40	60
Meagher	62	35	65
Musselshell	71	40	60
Petroleum	93	35	65
Wheatland	87	45	55
SOUTHWEST			
Beaverhead	66	45	55
Gallatin	33	45	55
Jefferson	48	52	48
Madison	67	45	55
Silver Bow	46	66	34
SOUTHCENTRAL			
Big Horn	84	25	75
Carbon	71	60	40
Park	49	49	51
Stillwater	59	45	55
Sweet Grass	33	30	70
Treasure	86	49	51
Yellowstone	74	30	70
SOUTHEAST			
Carter	89	30	70
Custer	92	50	50
Fallon	76	30	70
Powder River	84	50	50
Prairie	88	30	70
Rosebud	90	47	53
Wibaux	65	25	75

Source: Montana Department of Natural Resources & Conservation, Montana Rangeland Resource Program, Helena, Montana, June 1977.

Grazing on national forests of Montana is another important source of forage production. National forests in Montana contain 3,150,000 acres of range suitable for grazing. Grazing permits are currently being issued for 616,000 AUMs. Increased future productivity will result from transitory range and improved grazing systems and by 1970 between 900 and 1,000 permits should be available. Approximately 1,400 producers grazed livestock in the national forests in 1975.

Bureau of Land Management (BLM) Wilderness Study

A program similar to the concept of RARE II on national forests is under way by the BLM on national resource lands. Guidelines have been prepared for inventorying the wilderness value of public lands. The inventory is aimed at determining the existence of all roadless tracts of more than 5,000 acres. Following the inventory, the BLM will make recommendations to Congress regarding the future of such areas and their suitability for wilderness designation.

Montana has 8,141,525 acres of national resource lands under the control of BLM. The current inventory will bring immediate attention to the needs of the primitive and natural resources in the area. The inventory will also identify areas with potential for inclusion in the National Wilderness Preservation System.

METALLIC AND NONMETALLIC MINERALS

The Forest Service describes precious or semiprecious minerals in Montana as locatable minerals. These deposits can be "claimed" or "patented," and thus converted to private ownership. Claim must be patented before production can begin. In 1972 there were 250,000 mining claims in the national forests. About 20,000 claims are active and there is a widespread interest in mineral location and exploration.

Copper remains the most important mineral commodity produced in Montana; and future Montana production of this metal is expected to increase. The Anaconda Company has extensive reserves of ore at its East Ridge deposit in the eastern part of the Butte district. The Anaconda copper-molybdenum property at Lincoln, copper-nickel-chromite property at Nye, and the Asarco Spar Lake copper-silver deposit near Troy are in the development stage. Asarco at Lake Creek near Troy has been issued a permit to mine. They can become productive properties when price and demand warrant additional development. Antimony is currently being produced from the U. S. Antimony deposit in western Sanders County, and Montana gold and silver properties are receiving considerable attention because of price increases for these precious metals.

Nonmetallic mineral production remains relatively stable. Bentonite is being mined at Vanada, Warren, and Alzada at present, with development in northcentral Montana expected in the near future. The overburden associated with bentonite is made up largely of clays and shales and are often highly saline. Topsoil is often limited. For these reasons, the reclamation of these areas may be more challenging than for other minerals. Gypsum is mined at Heath and talc is mined near Ennis and Dillon. Sand and gravel, stone, quartzite, and limestone will be in greater demand for construction as urban areas expand and new developments occur. Sapphires are again being mined from the famous Yogo Gulch deposit near Lewistown.

Ferrous iron deposits in Madison County are being considered as sources of iron ore for chrome-steel production. Montana iron deposits are expected to receive much more attention from steel producers as eastern ore reserves diminish and as foreign sources are subject to increasing political instability.

ENERGY IN MONTANA

Oil, gas, coal, and electricity production continue to be significant factors in the economy of Montana. Although fossil type fuels remain dominant in the state, passage of Montana Senate Bill 86 in 1975 has prompted considerable research and development in the use of solar, wind, geothermal, and wood energy as renewable natural resources.

Total energy production and consumption in Montana continue to increase. There was a 17 percent increase in total energy produced between 1975 and 1976 when total production reached 760 trillion BTUs. Coal accounts for 62 percent, crude oil, 24 percent, and natural gas, 7 percent of the state's total energy produced. (See figure 8.)

Approximately 278 trillion BTUs of energy were consumed in 1976 which amounts to three percent more than in 1975. Petroleum products accounted for 48 percent, natural gas, 28 percent, coal, 15 percent, and hydroelectric power, 9 percent of the total consumption. (See figure 9.) The industrial sector used 43 percent of the energy produced, and the transportation sector used 32 percent of the total energy produced.

FIGURE 8 & FIGURE 9

PRODUCTION AND CONSUMPTION OF ENERGY IN MONTANA IN 1976
(In Trillion British Thermal Units)

PRODUCTION
(760 TBTU)

CONSUMPTION
(278 TBTU)

Figure 8
Production and Consumption of Energy in Montana in 1976
(In Trillion British Thermal Units)

Figure 9

Source: Itomi, Rick; Montana Historical Energy Statistics, Montana Energy Office, Helena, Montana, February, 1978

Electricity

Fossil fuel and hydroelectric plants in Montana produced 16.1 billion kilowatt hours (KWH) of electricity in 1976 or an increase of 43 percent over 1975. Hydroelectric generation accounted for 77 percent of the total produced. The addition of Colstrip #1 and #2, plus the addition of Libby #3 and #4, resulted in a 130 percent increase in total generation of electricity over 1976. A total of 3.6 billion KWHs of electricity was produced by coal-fired generation plants. The sale of electricity in Montana in 1976 totaled 9.6 billion KWHs. Residential consumers paid 2.23 cents/KWH, commercial consumers paid 2.06 cents/KWH, and industrial consumers paid 0.60 cents/KWH for the electricity they consumed.

Coal

Greater coal production is forecast for the future as production at existing mines is expanded and as new mines are developed. Production in 1978 totaled 27.4 million tons--up 5 percent from 1976.

Coal from the Fort Union region of eastern Montana is being utilized by power companies in increasing amounts to minimize air pollution because of its low sulfur content. About 90 percent of the coal produced in Montana was shipped out of state by the major coal companies in 1976 to utility companies in Minnesota, Wiscsonsin, Illinois, and Indiana. In 1977 production reached 27.4 million tons--up four percent from 1976.

Big Horn County was the top coal-producing county in Montana in 1976 with 14,291,542 tons. Rosebud County was second with a total production of 11,662,052 tons. The average minemouth price for coal produced in Montana was $5.72/ton in 1976 compared with $4.97 per ton in 1975.

The Montana Bureau of Mines and Geology, under a grant by the Office of Air Programs, Environmental Protection Agency, and a matching appropriation from the state legislature, is determining the quantity and quality of eastern Montana's strippable subbituminous coal and lignite. The Bureau estimates total easily strippable reserves to be more than 23 billion tons, excluding the Northern Cheyenne and Crow Indian Reservations. When information becomes available on the strippable reserves on the Reservations, the estimate of total reserves from Montana will probably exceed 30 billion tons.

Natural Gas

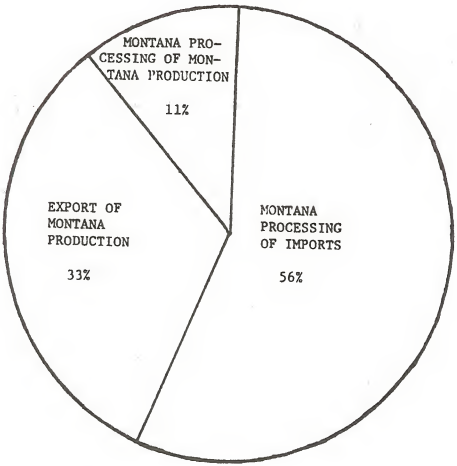
The production of natural gas reached 45.1 billion cubic feet in 1976. A total of 70.4 billion cubic feet of natural gas was sold in 1976 in Montana. The state's estimated natural gas reserves as of December 31, 1976 were estimated to be 1.096 trillion cubic feet.

Crude Petroleum and Petroleum Products

Gasoline sales totaled 11,722,000 barrels in Montana in 1976. This represented a seven percent increase over 1975. Montana refineries produced 16,281,000 barrels of gasoline in 1976--an increase of five percent over 1975. At the end of 1976, Montana's proven crude oil reserves were estimated at 152,670,000 barrels. The crude oil wellhead price reached $8.40 during 1976. The data in figure 10 show the sources of Montana's crude oil supplies.

FIGURE 10

SUPPLY OF CRUDE OIL IN MONTANA IN 1976



Supply of Crude Oil in Montana in 1976

Figure 10:

Source: Itomi, Rick, Montana Historical Energy Statistics, Montana Energy Office, Helena, Montana, February, 1978

MHD (Magnetohydrodynamics)

In 1974 the Montana Energy and MHD Research and Development Institute (MERDI) was established in Butte, Montana to develop methods of conserving western energy sources. The research activities of the MHD program are divided among researchers at MERDI, the Montana College of Mineral Science and Technology, and Montana State University.

The MHD process is one in which a gas mixture can be ionized by heating to 3,000-5,000 degrees F, thus causing this mixture to become an electrical conductor. The development of the process could result in power plants that are 50 percent more efficient than conventional thermal generating systems; will reduce the amount of air pollution; will use less water and produce less thermal pollution; and, once the technology is fully developed, will be more economical than either nuclear or present fossil-fuel plants. Only about two-thirds as much coal will be needed to produce the same amount of heat. Because of the limited amount of pollution produced by MHD plants, they can be built near large population centers.

MHD is still in the developmental stage in the United States. Reduced funding has slowed the research and development process.

Northern Tier Pipeline

A group of investors that includes Burlington Northern, Milwaukee Railroad, and U. S. Steel has proposed a 1,560-mile pipeline from Port Angeles, Washington to Clearbrook, Minnesota. The current proposed route would cross 620 miles of Montana from near Thompson Falls to Sidney. Crude oil from the proposed line could supply refineries at Billings and Laurel. Canada has announced its intention to reduce oil exports to the U. S. and to cut them off entirely by 1982. In 1975 one-third of Montana's crude oil supply came from Canadian sources.

The proposed route for the 40-42" steel pipeline would cross 18 Montana counties: Sanders, Lake, Missoula, Powell, Lewis & Clark, Jefferson, Broadwater, Meagher, Wheatland, Golden Valley, Musselshell, Fergus, Petroleum, Garfield, McCone, Dawson, Richland, and Roosevelt.

Further information on the proposed pipeline may be obtained by contacting David Janis, Northern Tier EIS Project Manager, Energy Division, DNRC, Capitol Station, Helena, Montana 59601 (406) 449-3780, or the Northern Tier ES Team, Bureau of Land Management, Department of the Interior, P. O. Box 2965, Portland, Oregon 97208, 1-800-547-5532 (toll-free).

RECLAMATION IN MONTANA

Consumptive demands for energy by an affluent and growing society in the U. S. has created a critical energy deficit. Federal energy regulations are not designed to reduce consumption of energy in its various forms, but merely to reduce the rate of increase. Actual energy production of the last few years has fallen far short of expectations. Production of coal in Montana is now approaching the predictions of 1973. However, no new mines of consequence have occurred since this date, increased production being the result of expansion of existent mines by activation of new pits. Current production is presently restricted by the limited capacity of the railway system to deliver coal from mine to market.

Contrary to the restricted production of coal, reclamation research and implementation on mined lands has progressed at a gratifying pace. Montana's mine reclamation research program has attained national and international recognition as is evidenced by recent visits of reclamation specialists from the Soviet Union, Australia, Canada, New Zealand, and Poland.

Applications of earlier research results by coal companies have produced very acceptable stands of stabilizing forage on some revegetated sites. The passing of the Montana Strip Mining and Reclamation Act of 1973 has been effectively managed so that reclamation practices at mine sites are well enforced and up-to-date. This law required the establishment of a predominantly native vegetative cover on spoils sites, and much progress has been made through research in recent years on determination of suitable plant materials and seeding methods to accomplish this goal.

Vegetation produced on mine sites must be subjected to grazing by livestock and wildlife. Currently, reclamation research is evaluating forage produced on mine spoils for nutritive values as well as heavy metal content. Some materials concentrated by vegetative uptake may be toxic to grazing stock under some conditions. These special conditions must be substantiated so that they may be recognized and avoided. Analysis of overburden previous to mining and of spoils after mining is an important and interrelated part of this program.

The rate of soil development on mined lands, the occurrence and effect of soil microorganisms, plant succession, and development of wildlife habitat are all subjects of current research.

Because of the importance of surface and ground water to Montana, the thrust of the reclamation research program has evolved through emphasis on revegetation to include intensive studies on water quality, thus protecting the integrity of aquifer and surface flow systems from degradation. The focus is on analysis of overburden and selective placement of spoils during the excavation process.

The related concern of surface soil erosion is also a major subject of the reclamation research program. Erosion is without question a most expensive recurring problem to arise on revegetated mine sites regardless of steep slope elimination and management as required by law. The natural precipitation pattern and intensity will keep soil erosion control methods on loose fill mine spoils in the forefront of research efforts for some time. Conducting violent intermittent accumulated flow of runoff through mine drainage systems without excessive erosion is a major objective.

WEATHER MODIFICATION

Increasing public awareness of weather as a natural resource to be managed, together with indications that rain and snow have been increased in some situations, resulted in the appointment of a Federal Weather Modification Advisory Board in 1977. In the future Montana will have to make decisions about weather resource management. Several aspects of weather resource management are being considered in light of current technology capability, interests and activities in Montana, and potential social issues.

Snowpack augmentation has a potential for increasing the amount of stored water for agriculture and power production in Montana. Increased snow accumulation would be important to those along the Missouri and Columbia Rivers outside the state.

The augmentation of rainfall from spring and summer cumulus clouds is of concern to Montanans in terms of increased agricultural crop production range-carrying capacity and possible environmental impacts. Montana is part of the High Plains Cooperative Experiment (HIPLEX) which is administered from the Office of Atmospheric Resources Management. Miles City has been selected as the research site in Montana. In 1977 the Montana Legislature appropriated $50,000 for cooperative research.

Phase I of HIPLEX is focused on an effort to learn how natural clouds behave and produce rain. This phase was scheduled for completion during the summer of 1978. Phase two of HIPLEX will include random seeding experiments to increase rainfall from isolated cumulus clouds. Phase two will begin during the summer of 1979 or 1980. Agricultural and ecological research conducted under the auspices of the Montana Department of Natural Resources and Conservation is providing information concerning the responses of crops and rangeland to altered rainfall patterns.

Numerous other weather-related concerns are being considered in an effort to further protect our natural resources and increase the productivity of the state.

1. Hail suppression is of concern to Montana in terms of decreased crop damage, reduced insurance premiums, and possible environmental impact if conducted over long periods of time.

2. Fog clearance and the elimination of stratus clouds is of concern to Montana in terms of improved visibility at fog-shrouded airports and the availability of solar energy at the surface of the earth.

3. Lightning suppression is of concern to Montana because of extensive forest resources in the west and the frequency of lightning-caused fires.

4. Downwind effects from precipitation management programs to the northwest, west, and southwest may become a concern to Montana. Within the state, residents of the eastern prairies may become concerned if winter orographic seeding increases precipitation in the western mountains of the state.

5. Drought alleviation provides a tempting motivation for precipitation enhancement, but it is essential that Montana residents be aware that this is the least effective time for employing present technologies.

There are many questions about weather modification that Montanans will be discussing in the future. Weather modification in general is a controversial issue. Some of the issues that must be faced on the local and state level include:

1. What is the priority of weather resource management in Montana?

2. Within what legal framework should weather resources be managed?

3. Who should pay for weather control activities?

4. At what point is the technology ready to use?

5. For whom should weather be changed?

PART 3

COMMUNITY DEVELOPMENT IN MONTANA

The idea of community development can and does have a variety of meanings as currently used. For the purpose of this statement, community development is defined as a process whereby the people who comprise a community arrive at group decisions and actions to bring about changes which will enhance the social and economic well-being of their community. Coincident with this process is the necessity of formulating some action processes to facilitate educational and action programs.

Local governing bodies are the principal groups with an opportunity to coordinate the overall pattern of physical and social development of the community.

Local people need an instrument which establishes long-range, general policies for the physical and social development of the community in a coordinated and unified manner which can be continually referred to in deciding upon the development issues which come up regularly. The comprehensive plan is such an instrument.

The comprehensive plan is an official public document adopted by a local government as a policy guide to decisions about the physical and social development of a community. It indicates in a general way how the citizens of a community want that community to develop in the next 20 to 30 years.

Using the comprehensive plan as a road map, the many groups concerned with special problems of the community can coordinate their efforts to accommodate change and achieve the future community they all desire.

PLANNING BOARDS

Montana law provides for comprehensive planning at the local level through the establishment of planning boards to assist and advise elected government officials. Elected officials may appropriate local public funds for the board to carry out its functions.

In Montana, city, city-county, and county planning boards are allowed. Urban planning to facilitate orderly growth and the provision of municipal services in communities is undertaken by city or city-county planning boards. Action to form three boards is initiated by the city or town council. Once this initial step is taken, the county determines whether the board shall have jurisdiction in the urbanizing

county area surrounding the city (four and one-half miles) or just the city. There are currently 24 city-county and five city planning boards in Montana.

Rural planning to consider issues such as recreational subdivisions, rural community services, and utilization of natural resources is undertaken by county planning boards. Action to form such a board is initiated by the county passing a resolution of intent to create a county planning board. This is followed by a public hearing and a 60-day protest period. During the seven years that creation of county planning boards has been allowed in Montana, 48 county boards have been formed.

In addition to local funds for planning, the Department of Housing and Urban Development (HUD) provides grants-in-aid for comprehensive planning. Approximately 139 local planning boards have received grants. HUD and the Montana Division of Planning and Economic Development encourage continuous planning activities undertaken by full-time staff either hired directly by a single planning board or through a joint services agreement among several planning boards.

RESEARCH AND INFORMATION NEEDS

In many of the subject areas discussed in this report there is an urgent and continuing need for new information which can be obtained only through scientific investigations. Several of the agencies active in research are described briefly with their specific areas of interest.

In the area of forest research, the School of Forestry, University of Montana, at Missoula is the primary state agency conducting research. In addition, the U. S. Forest Service conducts research at its Intermountain Forest and Range Experiment Station at Ogden, Utah and supports forestry research at Bozeman and Missoula. Experimental forests at Coram and Tenderfoot Creek are used as study sites in Montana.

In the area of mining and ground-water research, primary responsibility lies with the Montana Bureau of Mines and Geology at Butte. The Montana University Joint Water Resource Research Center involving MSU, Montana College of Mineral Science & Technology, and the University of Montana conducts research on a wide range of hydrologic problems (ground surface and atmospheric water). Interschool cooperation occurs in both areas of water and mining. In addition, the U. S. Geological Survey, Water Resources Division, Helena, conducts extensive hydrologic studies in cooperation with state agencies. The U. S. Bureau of Mines conducts research on selected mining areas and also supports research at MSU and Montana Tech. Research on atmospheric water, including

weather modification, has been supported at MSU largely by the U. S. Bureau of Reclamation. Reclamation of mined lands, including associated water problems, supported in part by the U. S. Bureau of Mines and private industry, is conducted by Montana State University and Montana Tech.

The Montana Agricultural Experiment Station, a unit of Montana State University, is the primary agency responsible for agricultural research in Montana. Research is conducted on a wide range of research problems, including production agriculture, economics, rural development, environment, land, water, wildlife, land use planning, manpower needs, reclamation, weather, and many related problems. Eighteen research and service departments and laboratories at Bozeman and seven other research centers across the state comprise the Experiment Station. Approximately 80 full-time equivalent scientists, with supporting personnel, staff the Experiment Station. Information derived from research is made available through publications of the Experiment Station and through the Cooperative Extension Service. In addition, cooperative research is conducted by the USDA Agricultural Research Service personnel at Bozeman, Miles City, and Sidney, and by USDA Economic Research Service personnel at Bozeman.

Widely diversified research efforts are conducted by the larger university units. With the changing needs for environmental concerns, community development, recreation, social concerns, food and fiber, and other changing information needs, there is a constant requirement for new and expanded research for all research agencies. There is need for funding support to meet program needs and to offset continuing increase costs.

KELLOGG-EXTENSION EDUCATION PROJECT

The Kellogg Extension Education Project (KEEP) was initiated in July of 1971 by the Montana Cooperative Extension Service through a grant from the W. K. Kellogg Foundation. The initial project grant was programmed to run through 1976.

The primary objective of KEEP is to educate Montana men and women to be more effective citizens. KEEP encourages people to participate in public efforts to better their communities, organizations, and government. KEEP began bringing groups of people to the MSU campus in 1972--some to a series of week-long communications workshops, some to a more intensive and broad study-travel program.

KEEP brings an occupational and geographical cross section of Montana men and women to the MSU campus for leadership training. Over 800 have attended week-long communications workshops since Extension began the program in 1972. One hundred and eighty have participated in

KEEP Study-Travel, an intensive two-year series of learning experiences. A high proportion of participants asks to return for advanced training in communications and conflict management.

Program "alumnae" was incorporated into the Montana Leadership Development Association in 1976. Their Association's purpose is to promote support for more leadership development and, to this end, the Association has requested funds from the legislature. Independent, rigorous, statistical evaluations of participants' behavior in community affairs indicate that KEEP is an important, positive force in Montana.

ECONOMIC DEVELOPMENT ASSOCIATION OF EASTERN MONTANA (EDAEM)

The Economic Development Association of Eastern Montana was organized in 1970 to assist in the solution of problems and to develop opportunities in the region. The association receives assistance from the Cooperative Extension Service by providing one full-time Area Community Development Agent. The association is a voluntary organization composed of representatives from each of 18 eastern Montana counties and receives considerable help from local government, state and federal agencies, and local community organizations.

The association was organized after the 1970 population census, which indicated that the 18-county area had lost over 13,000 persons during the 1960s. There was a strong feeling in the area that an action program was needed that would make the many small towns and rural communities in eastern Montana better places in which to live and earn a living.

Each member county selects three voting delegates and three alternates to attend association meetings. It is the responsibility of the delegates to determine what goals will be worked on within the 18-county area. EDAEM holds three meetings per year--one in the spring, one in the fall, and an annual meeting in January.

Various committees are assigned to work on the association goals to: (a) provide leadership to carry out plans for the orderly development, improvement, conservation, and efficient use of resources and ensure improvement of the economic opportunities in the area; (b) secure federal, state, local governmental, private indivdual, and business assistance; and (c) promote cooperation among all agencies and individuals.

The association is involved in supporting activities in: (1) agricultural marketing, (2) taxation, (3) transportation, (4) water, (5) recreation, (6) health, (7) environmental, and (8) communication, which will help maintain a viable economic base in the area.

BITTER ROOT RESOURCE CONSERVATION AND DEVELOPMENT AREA

The Bitter Root Resource Conservation and Development project serves Mineral, Missoula, and Ravalli Counties. First operated in 1966, the area was organized under the provisions of the Food and Agriculture Act of 1962. The group is sponsored by the conservation districts and county commissions of the three counties and is served by a project coordinator, forester, and part-time community development specialist. All officers must be citizen volunteers who also do nearly all the work, normally on projects they have brought to the group.

There is a program committee in each county which meets each month. Special committees meet as needed to complete projects. Quarterly meetings are held by officers from all three counties meeting as a council.

The purpose of RC&Ds is to accelerate the conservation of human and natural resources, promote orderly and wise economic development, and otherwise enhance life for all citizens. Any person may present a project--whether for personal profit, for group benefit, or community betterment. The projects must be written and are discussed at program committee meetings where the citizen volunteers assist the proponent and assign appropriate duties to local, state, and federal agency personnel. Memorandums of agreement have been drawn up with most public agencies, and loans, cost-sharing, and technical assistance are available. Normally, project proponents organize as needed and are expected to assume prime responsibility for the ongoing activities.

Some 600 projects have been acted upon by the Bitter Root RC&D. Recent ones include establishment of a plastics plant and creamery in Hamilton, development of parks and a farmers market in Missoula, and closing, reseeding and beautifying a former dump in Mineral County. Subject matter subcommittees include: agricultural, forestry-industry, cultural affairs, finance, recreation, and others as needed. The Bitter Root RC&D is part of the Western RC&D Association, covering the western United States and the Montana League of RC&Ds.

HEADWATERS RESOURCE CONSERVATION AND DEVELOPMENT AREA

The Headwaters RC&D area includes seven southwestern Montana counties--Granite, Deer Lodge, Powell, Silver Bow, Madison, Jefferson, and Beaverhead. County commissioners, conservation district supervisors, and city councils of the seven counties formed the Headwaters RC&D in 1974 with headquarters in Butte.

Operations, organization, and purposes are similar to the Bitter Root RC&D. Officers from the program committees of the seven counties meet quarterly to hear progress reports and discuss subjects of interest to all.

The project coordinator is appointed from the ranks of career Soil Conservation Service personnel; a State Forester is assigned to the area; and it has the part-time services of an Extension community development specialist. All other personnel are citizen volunteers who hold offices, make decisions, and direct agency personnel.

The approximately 150 projects include a $3.2 million gravity flow irrigation system, support of inventors and small manufacturers, trout farming, forestry practices, and intense efforts to find uses for the Childrens Center at Twin Bridges.

As with other RC&Ds, any person may attend monthly meetings and present projects. Contact with the 178 other RC&D areas which blanket one-third of the United States is also maintained.

THE REVENUE SHARING ACT OF 1972

Revenue sharing became a reality on October 20, 1972 upon passage of the "State and Local Fiscal Assistance Act of 1972" (P. L. 92-512) by the 92nd Congress. Under the Act state and local governments receive payments from a federal trust fund established for that purpose.

Table 16 is a summary of the amount of payments for entitlement period 1 through 5, January 1, 1972 through June 30, 1975. The amount paid for the first quarter settlement, period 9, and the cumulative total are also shown.

TABLE 16

REVENUE SHARING PAYMENTS IN MONTANA

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
State of Montana	18,479,515	8,421,418	1,972,297	47,015,296
Beaverhead County	382,862	152,110	47,479	922,991
Dillon, City of	69,651	31,937	9,178	179,491
Lima, Town of	6,547	1,955	847	12,864
County Total	459,060	186,002	57,504	1,115,346
Big Horn County	317,073	185,998	47,020	891,162
Hardin, City of	59,278	26,865	5,642	151,403
Lodge Grass, Town of	32,687	9,074	1,574	62,724
Crow Tribal Council	202,830	109,939	26,378	556,281
Northern Cheyenne Tribal	177,173	84,265	21,346	462,559
County Total	789,041	416,141	96,960	2,124,129
Blaine County	362,736	165,010	35,728	891,538
Chinook, City of	42,279	16,485	3,744	111,562
Harlem, City of	30,788	9,691	2,368	76,854
Fort Belknap Council	88,904	40,515	11,128	243,637
County Total	524,707	231,701	52,968	1,323,591
Broadwater County	148,475	70,366	15,630	385,489
Townsend, City of	46,466	18,472	6,122	115,851
County Total	194,941	88,838	21,752	501,340
Carbon County	421,971	188,106	46,124	1,036,307
Bearcreek, Town of	1,029	406	Report	2,287
Bridger, Town of	16,581	2,112	2,241	52,538
Fromberg, Town of	3,874	1,766	526	10,025
Joliet, Town of	11,154	3,904	701	25,362
Red Lodge, City of	67,125	22,065	5,530	154,859
County Total	521,734	228,359	55,122	1,281,378
Carter County	127,962	65,121	13,346	324,115
Ekalaka, Town of	7,747	3,670	955	19,398
County Total	135,709	68,791	14,301	343,513
Cascade County	1,958,340	841,338	186,538	4,765,596
Belt, City of	22,497	10,108	5,365	62,819
Cascade, Town of	17,121	7,281	3,518	43,462
Great Falls, City of	1,806,554	817,628	188,389	4,519,476
Niehard, Town of	2,610	904	735	7,142
County Total	3,807,122	2,677,259	384,545	9,398,495

TABLE 16--REVENUE SHARING PAYMENTS IN MONTANA (continued)

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
Choteau County	316,072	147,351	11,397	698,889
Big Sandy, Town of	12,168	5,215	838	27,196
Fort Benton, City of	40,726	12,178	1,956	80,876
Geraldine, Town of	8,366	3,800	411	18,784
Chippewa/Cree Bus Comm.	64,478	29,706	4,535	162,142
County Total	441,810	198,250	19,137	987,887
Custer County	412,823	185,875	46,906	1,226,305
Miles City, City of	217,630	100,074	30,085	582,440
County Total	630,453	285,949	76,991	1,809,245
Daniels County	194,125	76,897	8,597	449,873
Flaxville, City of	5,365	1,888	Report	11,188
Scobey, City of	25,170	12,746	1,901	69,413
Fort Peck Tribal Exec. Bd.	256,079	144,431	22,252	631,938
County Total	480,739	205,962	32,750	1,162,412
Dawson County	314,844	153,166	29,381	902,173
Glendive, City of	136,902	58,648	16,889	356,438
Richey, Town of	8,040	3,686	722	20,533
County Total	459,786	215,500	46,992	1,279,144
Deer Lodge County	747,650	311,640	59,059	1,754,685
Anaconda, City of	420,504	177,404	37,679	996,872
County Total	1,168,154	489,044	96,734	2,751,557
Fallon County	261,690	121,386	26,616	646,329
Baker, City of	46,439	19,390	4,137	172,490
Plevna, Town of	4,426	1,661	207	8,559
County Total	312,555	142,437	30,960	767,378
Fergus County	582,236	255,033	47,071	1,371,053
Denton, Town of	13,175	5,153	932	29,430
Grass Range, Town of	1,927	878	213	4,829
Lewistown, City of	206,197	91,023	18,486	481,882
Moore, Town of	3,106	1,246	363	6,902
Winifred, Town of	2,063	922	1,272	5,521
County Total	808,704	354,255	68,337	1,899,617
Flathead County	1,177,289	618,943	144,091	3,416,165
Columbia Falls, City of	94,499	41,798	16,263	286,877
Kalispell, City of	289,132	137,896	37,481	852,161

TABLE 16--REVENUE SHARING PAYMENTS IN MONTANA (continued)

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
Whitefish, City of	144,658	65,885	19,626	379,402
Flathead Tribal Council	182,112	89,433	22,382	477,408
County Total	1,887,690	953,955	239,843	5,412,013
Gallatin County	787,748	381,162	76,973	2,098,088
Belgrade, Town of	26,763	3,270	5,832	77,885
Bozeman, City of	394,564	208,703	48,832	1,147,174
Manhattan, Town of	41,377	14,145	3,287	91,098
Three Forks, Town of	17,637	10,708	2,170	49,396
West Yellowstone, Town of	13,357	8,254	4,249	43,240
County Total	1,281,446	636,242	141,343	3,506,881
Garfield County	143,218	61,428	13,413	333,015
Jordan, Town of	5,631	2,566	561	14,001
County Total	139,849	63,994	13,974	347,016
Glacier County	396,584	194,610	41,535	1,037,918
Browning, Town of	60,229	14,666	3,838	116,039
Cut Bank, City of	51,148	22,210	7,014	152,896
Blackfeet Tribal Bus Counc.	354,537	161,570	37,855	894,025
County Total	862,498	393,056	90,242	2,200,878
Golden Valley County	66,342	30,648	6,472	151,476
Lavina, Town of	2,587	849	261	5,339
Ryegate, Town of	3,049	1,266	372	7,265
County Total	71,978	32,763	7,105	164,080
Granite County	139,081	81,011	16,757	390,646
Drummond, Town of	9,161	3,799	1,084	20,803
Philipsburg, City of	24,759	11,449	2,696	63,064
County Total	173,001	96,259	20,537	474,513
Hill County	557,264	249,438	34,763	1,371,443
Havre, City of	273,726	133,411	20,491	695,445
Hingham, Town of	2,902	2,641	217	8,866
County Total	833,892	385,490	55,471	2,075,754
Jefferson County	295,040	123,066	34,555	718,454
Boulder, Town of	33,312	14,242	7,495	88,171
Whitehall, Town of	20,973	8,267	3,864	49,371
County Total	349,325	145,575	45,914	855,998

TABLE 16--REVENUE SHARING PAYMENTS IN MONTANA (continued)

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
Judith Basin County	187,784	85,391	18,052	466,250
Hobson, Town of	3,803	1,406	266	8,091
Stanford, Town of	14,235	6,413	1,144	35,020
County Total	205,822	93,210	19,462	509,361
Lake County	718,605	360,143	92,368	1,951,919
Polson, City of	84,345	38,376	10,164	222,759
Ronan, City of	50,948	25,280	7,230	146,178
St. Ignatius, Town of	20,752	7,520	2,324	50,586
County Total	874,650	431,319	112,086	2,371,442
Lewis & Clark County	659,224	362,886	100,088	1,938,201
East Helena, City of	46,478	23,832	9,584	139,900
Helena, City of	510,426	221,081	49,309	1,269,989
County Total	1,216,128	607,799	158,981	3,348,090
Liberty County	159,121	70,498	14,138	372,920
Chester, Town of	22,931	12,467	2,609	69,010
County Total	182,052	82,965	16,747	431,930
Lincoln County	316,648	147,580	33,513	807,624
Eureka, Town of	27,942	10,035	2,960	63,534
Libby, City of	73,487	36,784	13,618	214,335
Troy, Town of	12,903	5,779	1,845	35,198
Rexford, Town of	721	---	Report	1,771
County Total	431,701	200,178	51,945	1,122,462
McCone County	164,836	66,477	9,238	375,021
Circle, Town of	40,814	5,816	1,060	58,835
County Total	205,650	72,293	10,298	433,856
Madison County	223,598	95,521	40,076	560,801
Sheridan, Town of	7,545	3,486	1,232	19,344
Twin Bridges, Town of	14,346	6,901	1,614	38,145
Virginia City, Town of	2,343	1,292	507	6,353
Ennis, Town of	7,813	4,036	1,300	20,185
County Total	155,645	111,236	44,729	644,828
Meagher County	140,492	63,909	15,076	350,863
White Sulphur Springs	23,271	10,720	2,422	59,009
County Total	163,763	74,629	17,498	409,872

TABLE 16--REVENUE SHARING PAYMENTS IN MONTANA (continued)

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
Mineral County	153,800	57,296	13,486	371,477
Alberton, Town of	9,358	4,966	638	26,817
Superior, Town of	29,976	12,331	2,703	69,269
County Total	193,134	74,593	16,827	467,563
Missoula County	1,410,663	563,811	172,930	3,516,472
Missoula, City of	844,349	360,117	110,157	2,238,179
County Total	2,266,012	923,928	283,087	5,754,651
Musselshell County	227,552	90,736	23,587	548,269
Melstone, Town of	8,122	4,383	514	19,098
Roundup, City of	52,493	36,204	8,104	179,021
County Total	288,167	131,323	32,205	746,388
Park County	361,133	200,365	34,094	930,443
Clyde Park, Town of	3,414	1,678	610	8,874
Livingston, City of	247,781	100,444	23,704	588,428
County Total	612,328	302,487	58,408	1,527,745
Petroleum County	46,919	20,881	4,464	105,121
Winnett, Town of	5,173	2,791	586	13,455
County Total	52,092	23,672	5,050	118,576
Phillips County	328,694	150,905	24,192	807,694
Dodson, Town of	5,023	2,281	464	10,522
Malta, City of	65,498	28,542	7,219	188,683
Saco, Town of	10,887	5,163	416	21,890
County Total	410,102	186,891	32,291	998,789
Pondera County	404,942	181,477	38,790	1,010,952
Conrad, City of	52,463	32,368	8,882	167,390
Valier, Town of	22,463	4,839	1,849	47,640
County Total	479,868	218,684	49,520	1,225,982
Powder River County	207,782	91,353	17,659	471,947
Broadus, Town of	13,266	9,302	665	32,207
County Total	221,048	100,655	18,324	504,154
Powell County	254,517	93,329	26,007	577,603
Deer Lodge, City of	61,882	24,299	6,649	144,174
County Total	316,399	117,628	32,656	721,777

TABLE 16--REVENUE SHARING PAYMENTS IN MONTANA (continued)

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
Prairie County	118,461	53,756	12,898	302,671
Terry, City of	161,746	7,861	1,365	42,736
County Total	135,207	61,617	14,263	345,407
Ravalli County	689,798	318,286	89,273	1,802,695
Darby, Town of	16,766	8,134	1,974	38,796
Hamilton, City of	108,910	48,705	12,627	266,579
Stevensville, Town of	31,047	15,058	4,083	84,663
County Total	846,521	390,183	107,957	1,192,783
Richland County	574,676	246,390	62,578	1,477,875
Fairview, City of	37,231	13,853	1,677	85,655
Sidney, City of	98,442	42,933	10,107	227,581
County Total	710,349	303,176	74,362	1,791,111
Roosevelt County	403,445	192,746	30,456	974,858
Bainville, Town of	3,821	1,921	277	8,640
Brocktown, Town of	5,571	1,945	576	12,299
Culbertson, Town of	23,865	9,016	1,916	54,618
Froid, Town of	12,306	3,982	752	25,306
Poplar, City of	28,800	10,614	2,019	68,168
Wolf Point, City of	88,118	30,017	6,425	190,141
County Total	565,926	250,241	42,421	1,334,030
Rosebud County	295,989	136,560	49,965	806,534
Forsyth, City of	32,926	13,333	4,882	87,638
County Total	328,915	149,893	54,847	894,172
Sanders County	349,074	178,478	48,856	921,357
Hot Springs, Town of	10,154	5,117	1,680	28,701
Plains, Town of	39,700	17,208	4,025	94,021
Thompson Falls, Town of	20,359	7,175	2,951	54,938
County Total	419,287	297,978	57,512	1,099,017
Sheridan County	228,508	94,239	12,206	588,598
Medicine Lake, Town of	10,310	6,082	748	25,918
Outlook, Town of	2,097	742	117	4,399
Plentywood, City of	54,795	16,750	2,466	111,417
Westby, Town of	7,812	3,286	269	18,448
County Total	303,517	121,099	15,806	748,760

TABLE 16--REVENUE SHARING PAYMENTS IN MONTANA (continued)

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
Silver Bow County	2,024,695	821,189	179,825	4,763,457
Butte, City of	790,989	263,809	58,941	1,696,547
Walkerville, City of	19,429	9,263	2,256	46,797
County Total	2,835,113	1,094,261	241,022	6,506,801
Stillwater County	246,714	113,575	22,999	602,091
Columbus, Town of	37,643	15,620	4,221	96,718
County Total	284,357	129,195	27,220	698,809
Sweet Grass County	193,101	75,429	19,145	473,804
Big Timber, City of	29,764	15,940	3,117	82,441
County Total	222,865	91,369	22,262	556,245
Teton County	327,533	168,212	41,843	838,933
Choteau, City of	27,533	11,586	2,760	60,472
Dutton, Town of	9,113	3,438	873	21,208
Fairfield, Town of	28,162	11,569	3,286	63,229
County Total	391,832	194,805	48,762	983,842
Toole County	361,934	175,868	34,579	918,661
Kevin, Town of	10,965	3,000	1,426	20,041
Shelby, City of	72,048	24,103	5,214	153,045
Sunburst, Town of	6,430	2,930	559	15,827
County Total	451,377	205,901	41,778	1,107,574
Treasure County	68,283	25,283	5,814	153,018
Hyaham, Town of	12,095	7,330	1,178	32,078
County Total	80,378	32,613	6,992	185,096
Valley County	539,219	260,232	38,954	1,272,026
Glasgow, City of	100,127	71,631	13,751	324,075
Nashua, Town of	14,494	5,577	1,221	29,000
Opheim, Town of	6,897	2,992	412	15,472
County Total	660,737	340,432	54,338	1,640,573
Wheatland County	160,212	71,992	15,408	386,925
Harlowton, City of	33,620	15,999	2,936	79,015
Judith Gap, City of	1,703	953	195	4,464
County Total	195,535	88,944	18,539	470,404

TABLE 16--REVENUE SHARING PAYMENTS IN MONTANA (continued)

Name	Entitlement Periods 1-5 (1)	(5)	1st Qtr. Payment 10/1--12/31 1977	All Payments To Date
Wibaux County	104,587	47,472	10,541	261,442
Wibaux, Town of	8,471	4,051	704	19,856
County Total	113,058	51,523	11,245	281,298
Yellowstone County	1,723,214	893,722	227,931	4,797,585
Billings, City of	1,866,093	899,960	225,464	4,955,227
Broadview, Town of	3,058	1,483	607	8,798
Laurel, City of	112,940	55,940	21,491	312,653
County Total	3,705,305	1,851,105	475,493	10,074,263
STATE TOTAL	55,438,549	25,235,065	5,916,712	141,045,062

Source: Department of the Treasury, Office of Revnue Sharing, Entitlement Periods 1 through 5, with Entitlement Period 6 Estimate, pp. 238-240.

Department of the Treasury, Office of Revenue Sharing, General Revenue Sharing 22nd payment, 1st quarter, Period 9, January 9, 1978, pp. 137, 138.

FARM PROGRAMS

Farm Ownership Loans

The Farmers Home Administration (FmHA) makes and guarantees farm ownership loans with technical management assistance provided to applicants who will operate not larger than family farms.

Farm ownership loans may be used to buy or enlarge farms; to construct, improve, or repair farm homes and farm service buildings; to drill wells and otherwise improve water supply systems for home use, livestock, and irrigation; and to refinance debts.

Farm Operating Loans

FmHA makes farm operating loans accompanied by technical management assistance to people to operate family farms.

Farm operating loans may be used to buy cattle, hogs, and other livestock; poultry; tractors, plows, sprayers, and other farm equipment; food freezers and other home equipment; fencing; to make minor improvements to buildings and land; and to develop water supply systems for home use, livestock, and irrigation.

Loans may be used for farm operating expenses such as buying feed, seed, tractor fuel, lime, fertilizer, chemical sprays, hail and crop insurance, and hiring labor.

Grazing Association Loans

FmHA is authorized to make loans to grazing associations up to $4 million. Funds can be used for the purchase of land; securing grazing rights and leases; construction of necessary facilities; water development; land and pasture improvement, including brush removal; and necessary conservation programs.

RURAL HOUSING PROGRAMS

Single Family Housing Loans

FmHA provides loans in rural areas to finance homes and building sites. Rural areas include open country and places with population of 10,000 or less that are rural in character and not closely associated with urban areas. Loans may be made in towns with populations between

10,000 and 20,000 that are outside standard metropolitan statistical areas if the Secretary of Agriculture and the Secretary of Housing and Urban Development find there is a serious lack of mortgage credit.

Home ownership loans may be used to buy, build, improve, repair, or rehabilitate rural homes and related facilities and to provide adequate water and waste disposal systems.

Homes may be built on individual tracts or in subdivisions. Funds may also be used to modernize homes--add bathrooms, central heating, modern kitchens, and other improvements such as driveways and foundation plantings.

Borrowers may buy an existing house and lot or buy a site on which to build a home. Under certain conditions, funds may be used to refinance debts on a home.

COMMUNITY DEVELOPMENT PROGRAMS

Water and Waste Disposal Loans and Grants

FmHA is authorized to provide financial assistance for water and waste disposal facilities in rural areas and towns of up to 10,000 people.

Priority will be given to public entities such as municipalities, counties, special purpose districts, Indian tribes, and corporations not operated for profit in areas smaller than 5,500 persons to restore a deteriorating water supply and improve, enlarge, or modify a water system or an inadequate waste system. Preference will also be given to projects which involve the merging of small systems.

Ordinarily, a grant will be considered only when the debt service portion of the cost to the users for either water or waste service exceeds one percent of the median income for the area. Funds may be available for up to 50 percent of eligible project development costs.

Community Facility Loans

FmHA is authorized to make loans to develop community facilities for public use in rural areas and towns of up to 10,000 people.

Loans are made to build or repair fire stations, libraries, hospitals, or other community facilities that provide essential services to rural residents.

Industrial Development Grants

FmHA makes grants to facilitate development of private business enterprises in rural areas or cities up to 50,000 population, with priority to applications for projects in open country, rural communities, and towns of 25,000 and smaller.

Eligibility is limited to public bodies such as incorporated towns and villages, boroughs, townships, counties, states, authorities, and districts.

Funds may be used to finance the acquisition and development of land and the construction of buildings, plants, equipment, access streets and roads, parking areas, utility and service extensions, refinancing, and fees.

BUSINESS AND INDUSTRIAL PROGRAMS

Business and Industrial Loans

FmHA assistance is provided in the form of a loan guarantee whereby the agency contracts to reimburse the lender for a maximum of 90 percent of principal and interest. Lenders are responsible for making and servicing quality loans. Applicants apply for loans through private lenders. In some special cases where a guaranteed loan is not available, FmHA may directly make and service the loan.

The basic purposes include developing or financing business or industry, increasing employment, and controlling or abating pollution. Within this framework, uses include, but are not limited to:

1. Financing business and industrial construction, conversion, acquisition, and modernization.

2. Financing purchase and development of land, easements, equipment, facilities, machinery, supplies or materials, and certain custom feedlots.

3. Supplying working capital.

Any individual, group, or community eligible for credit from commercial or cooperative sources is not eligible for FmHA assistance with the exception of the Business and Industrial Loan Program.

Applications may be obtained at the local county offices of the FmHA.

AGRICULTURAL CREDIT ACT OF 1978

The Agricultural Credit Act of 1978 is aimed at amending the Consolidated Farm and Rural Development Act to provide an economic emergency loan program to farmers and ranchers and to extend the Emergency Livestock Credit Act.

The following information is a summary of the key provisions of the Agricultural Credit Act of 1978:

I. Farmers Programs:

a. Farm Operating Loans

Corporations, partnerships, and cooperatives are eligible applicants.

Interest rate for insured loans will be the cost of money to the Government plus one percent.

Term of loan is seven years plus additional seven years if warranted.

All outstanding loans will be consolidated.

Loan limits are $100,000 insured, $200,000 guaranteed.

County committee will certify eligibility of applicant and not amount of loan.

b. Farm Ownership Loans

Cooperatives, corporations, and partnerships are eligible applicants.

Interest rate is the cost of money to the Government.

Loan limits are $200,000 insured, $300,000 guaranteed.

II. Community Development Programs:

a. Water and Waste Facilities Grants

Grants may be made to eligible applicants up to 75 percent of the total project cost and is not limited to 50 percent as previously.

AIR POLLUTION

In order to maintain optimum air quality in Montana, it is necessary to reduce all burning to an absolute minimum. It is recognized that some burning is necessary in agricultural and forestry practices, but only the very essential burning is permitted. Permits are available throughout most of the state from Air Quality Control Officers, usually county sanitarians. Since many counties do not have sanitarians, the sheriff's office, county fire chief, or others serve as Air Quality Control Officers in some areas. Guidelines according to State Regulation 90-010 have been established by the state for Air Quality Control Officers.

Essential burning includes cleaning of certain irrigation ditches, fire hazard reduction necessary to safeguard life and property, and training fires for instruction in methods of fighting fires. Permits are necessary for these fires and the permittee is responsible for proper control of his fire. No fire should be left unattended or allowed to smolder. Tires, ties, oil waste, tar paper, linoleum, or other materials that burn with dense black smoke or toxic gases are not to be burned. During 1974 the Department of Health initiated an experimental program of a one-month period in the spring when open burning could be done without a permit. The program was not satisfactory and was discontinued in 1975.

Montana has serious pollution problems from three major air pollutants--particulates, carbon monoxide, and sulfur oxides. The major cause of carbon monoxide is the automobile, and a major cause of sulfur oxides is industry. There are two kinds of air pollution standards--primary standards which protect human health and secondary standards which protect the public welfare by reducing damage to animals, vegetation, and materials. Five areas in Montana are known to exceed EPA primary standards for ambient air. Ambient air is a term used to describe the quality of surrounding air. Anaconda, Butte, Billings, Missoula, and southeastern Montana Coal Resource area all have until 1978 to develop a plan to "clean up their air."

The Air Quality Bureau of the Montana Department of Health and Environmental Sciences has undertaken a study to develop enforceable ambient air quality standards. The purpose of the study is to propose enforceable ambient air standards based on the best scientific, technical, economic, environmental, and social data reasonably available. Preparation of the standards will comply with citizen participation requirements of the Montana Administrative Procedures Act.

FEDERAL WATER POLLUTION CONTROL ACT--SECTION 208

It is generally agreed that too much soil is being washed into our streams; too much of our water resource is being wasted; and much of our land has sustained permanent damage from improper use. In many cases, conservation practices have not been able to keep the soil in place. Agricultural non-point pollution resulting from such factors as soil type, grazing and cropping programs, tillage, and range practices has been gaining considerable attention in Montana.

Section 208 of the Federal Water Pollution Control Act, as amended in 1972, made funds available to local and state governments through the U. S. Environmental Protection Agency to develop water quality programs and make recommendations to implement these programs.

The overall goal of Montana's plan is to protect the water of the state for "present and future municipal, agricultural, industrial, and recreational uses and for the support of fish, wildlife, and other aquatic life." To date, much emphasis has been placed on point-of-source pollution from such things as inadequate municipal waste treatment systems, acid mine seepages, and other industrial wastes. Montana's current water quality management planning will focus on the less obvious sources of water pollution--salts from irrigation and dryland farming, sediment from land disturbances, seepage from septic systems, and excessive water withdrawal.

The Montana Water Quality Bureau has been given statewide responsibility for developing the program. The Department of Health and Environmental Sciences and the Department of Natural Resources and Conservation have developed an interagency non-regulatory program continuing understanding, financial incentives and program monitoring and evaluation to seek answers to the following questions.

1. To what extent is agricultural water pollution resulting from sediment, salts, dewatering, and animal wastes caused by poor farming and ranching practices?

2. To what extent have logging practices on private, state, and federal land lowered water quality?

3. To what extent has mining lowered the quality of surface and ground water through the introduction of sediment, salts, metals, and acid seepage?

4. To what extent has construction of roads, subdivisions, and other land development resulted in water degradation?

5. To what extent has residual waste control caused impairment of water quality by seepage from septic tanks and land disposal of sewage sludge and solid wastes?

6. To what extent will present and future discharges from municipal and industrial waste treatment systems affect water quality?

7. To what extent has the discharge of sediment, heavy metals, and other pollutants from urban and industrial stormwater systems lowered the quality of water in our streams and lakes?

The preparation of the final statewide plan will be a joint effort with input from the Water Quality Bureau, a statewide advisory council, and a technical information group. The statewide plan must be completed by November 1, 1978. Final achievement of the program goal is set for 1983. Currently, financial assistance is being given four areawide planning organizations as shown in figure 11. The remainder of the state is the responsibility of the statewide planning agency.

FIGURE 11
STATEWIDE 208 STUDY AREA BOUNDARIES

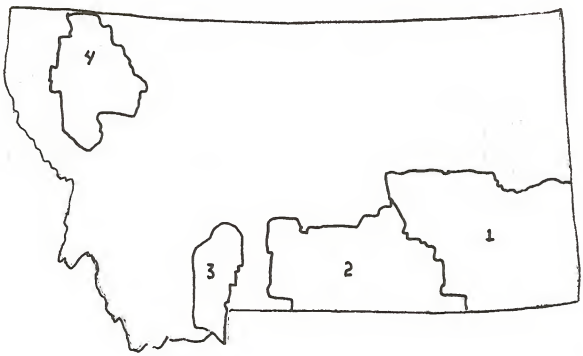


Figure 11 :

Source: Department of Health and Environmental Sciences, Environmental Sciences Division, Water Quality Bureau, Helena, Montana

SOLID WASTE DISPOSAL

Approximately 630,000 tons of municipal solid waste are generated in the state every year and that amount is expected to increase to approximately 870,000 tons per year by 1990. Solid waste disposal technical problems are becoming more difficult to solve due to the growing variety and complexity of the materials which people discard, the increased volume of solid waste, and the limited ways in which the material can be disposed. Some communities are running out of land suitable for solid waste disposal. The cost of solid waste disposal is expensive and its costs are generally exceeded only by the costs of schools and roads.

In 1977 the Montana legislature passed a law providing for the development of a State Solid Waste Management Plan and for the development of a program to handle and dispose of wastes, including hazardous wastes.

The Solid Waste Management Bureau of the Montana Department of Health and Environmental Sciences drafted a plan in the spring of 1977. The intent of the Montana plan is to assist local governments in developing areawide landfills, resource recovery facilities, and other waste management systems. The plan stipulates that waste must be disposed of in an environmentally sound manner. Local governments retain primary responsibility for solid waste management and are encouraged to involve private industry in their efforts. Where technically and financially practical, local governments may construct facilities which will recover reuseable waste materials and use combustible waste materials as an energy source. Two objectives of the plan are to close all open dumps in Montana by July 1, 1983 and to upgrade all disposal sites to sanitary landfills by that same date. Ninety-eight Montana communities (43%) have operational sanitary landfills; 129 communities (57%) do not meet state criteria for proper disposal.

Financial and technical assistance to communities in developing their solid waste management system is available. Presently, governments must pay back state project planning funds if the project is constructed. If the project is not constructed, the planning funds need not be repaid. The Solid Waste Management Bureau is currently considering suggestions to minimize the pay-back provisions. At the end of November 1977, 46 local governments had taken initial steps to apply for the $300,000 available for local solid waste management planning grants.

Public awareness of air pollution and water pollution has strongly encouraged government, industry, and the consumer to maintain a clean Montana. A similar public awareness of air, sight, and solid waste pollution problems is mounting.

There are two ways that a refuse disposal operation can be financed. An incorporated community that is large enough can finance the disposal by establishing a fee for each family residential unit, business, and industry. A refuse disposal district can cross county boundaries or it can encompass a certain area within a county. Incorporated cities may or may not be included in the district. In smaller populated areas, incorporated communities should be included in order to obtain enough residents for a economical unit. The financing in a district is accomplished by establishing a fee for a family residential unit. Commercial and industrial accounts pay according to the volume of refuse that is generated in relation to a family residential unit.

For any county considering a solid waste program, a county-wide or multi-county program should be seriously considered because it allows for a much broader approach to solving solid waste problems. This brings everyone into the solid waste program and has an effect of cleaning up the entire county.

Improper disposal of waste with noxious burning of refuse is not compatible with the development of a desirable place to live or work. Although most Montanans realize there is a solid waste problem, more public awareness and education are needed. "Out-of-sight, out-of-mind" is too often the case. Residents of Montana produce about five pounds of refuse per day per capita. National trends indicate that this will increase to eight pounds per day per capita by 1980. Some of the underlying causes for increased refuse production are: (1) packing trends; (2) the use of non-returnable containers; and (3) general rise in affluency in the United States. Constantly, more households are being serviced by some kind of garbage pickup service and the cost is varying.

Sources of solid waste by industry are interesting. For example:

(1) Recreation - about 3.8 million people go through Montana each year, each producing roughly 1.5 pounds of solid waste per day.

(2) Agriculture - the major solid waste problems or products are wheat, straw, stubble, and livestock manure. These wastes often can be incorporated into the soil except in cases of concentrations of livestock in feedlots. The solid waste products from livestock do not constitute a public health problem at this time unless the animals are confined to an area such as a feedlot. Large piles of manure allow flies to complete their life cycle.

(3) Mining - most of the waste generated is in the form of inorganic material--not animal or vegetable. Mill and smelter refuse piles are more of an aesthetic pollutant than a health problem.

(4) Lumbering - any waste products generated by lumbering have little public health significance. Their nature is more of a nuisance. Better than two million tons of wood wastes are burned in teepee burners per year.

(5) Old cars - approximately 25,000 old automobiles are dumped each year.

(6) Highways - the Montana Department of Highways maintains 853 litter barrels. It costs $51 per year to maintain each barrel from May through September. Besides all the litter dumped in these barrels, 50 tons per year is picked up at a cost of about $500 per ton.

The effects and costs of the solid waste disposal problem are important. For example: (1) solid waste has been associated with at least 22 human diseases and numerous accidental injuries; (2) mismanagement of solid wastes has adverse effects on land values and creates public nuisances; (3) solid waste management presents an economic problem of major proportion, costing millions of dollars; and (4) vast quantities of nonrenewable resources such as ferrous metals are permanently lost in solid waste disposal methods.

The Montana Department of Health and Environmental Sciences is charged with helping local communities in their efforts to develop sanitary methods of solid waste disposal. Programs have been developed or are in the process of development to aid in creating districts, financing districts, planning programs, evaluating efficiency, improving programs, and educating the general public. The DHES is introducing legislation concerning the disposal of old and abandoned cars.

Junk Vehicle Program

This program was initiated to control the disposal of junk vehicles throughout the state. Under the Junk Vehicle Act of 1973, each motor vehicle wrecking facility in the state must be licensed.

Each county is required to provide a free junk vehicle graveyard to which anyone can deliver a junk vehicle. The Solid Waste Management Bureau of the DHES is responsible for the final disposition of junk vehicles that have been accumulated by the counties. This is accomplished through contracts with private firms.

To assist in the funding of this program, the legislature assessed a special junk vehicle disposal fee on each new application for a motor vehicle title and on each transfer of title. This fee is collected by the county, along with license fees and any funds received by the Department from the sale or recycling of junk vehicles, and is used for control, collection, and disposal activities.

WATER POLLUTION

Water is a critical resource for Montanans. Water quality is influenced by (a) sedimentation from erosion, (b) sewage from cities and towns, (c) industrial waste water, (d) animal waste production, and (e) subdivision activities.

The principal degradation of Montana's streams is sediment due to water runoff. Some is natural, while a large part is due to man's activities. Accelerated land erosion is due to poor farming practices, logging roads, building construction, and subdivision design. Most are a result of poor planning initially. Proper land use is needed. Regulations may be needed to control conditions which might create erosion and degradation of water quality.

Before 1950 there were very few sewage treatment facilities in the state. The 1971 state legislature appropriated $4 million to allow Montana's municipalities to attain these additional grant funds. Forty Montana communities were offered state grants under this program. Over 100 sewage lagoons have been constructed in the state to date. The larger cities have constructed, are constructing, or planning for mechanical secondary sewage treatment facilities. The State Board of Health has adopted a compliance schedule for those communities which are in need of new or immediate improvements to existing sewage treatment facilities.

Substantial progress, particularly during the last five years, has been made by Montana's industries toward improving water quality. Industrial waste water discharges are regulated by the DHES. Three of the largest waste water dischargers--Great Western Sugar Company, Holly Sugar Company, and the Anaconda Company at Butte and Anaconda--completed improved waste water treatment facilities during 1972. In addition, there are several industries which will need minor improvement to meet national guidelines which are provided under the 1972 amendments to federal legislation.

During 1972, following public hearings, a waste water discharge permit program was adopted by the State Board of Health for confined animal feeding. This requires a feedlot to have a waste discharge permit if they have the potential for creating water pollution or air pollution. New or expanding feedlots come under the program immediately and existing feedlots must have a waste discharge permit by June 1974. Guidelines have been written to aid the operators of feedlots in finding methods to control pollution.

In 1961 legislation was enacted which required that a sanitary restriction be placed on subdivisions--lots under ten acres--when filed with the county. Before the sanitary restriction is removed, the

Department must determine that an adequate water supply and sewage disposal facilities will be provided.

Waste discharge permits are required for all domestic sewage and industrial and agricultural waste water. Montana law requires that any waste water discharger must have a valid permit from the Department. Dischargers which do not have adequate treatment facilities are placed on compliance plans for providing adequate facilities.

COMMUNITY WATER SUPPLIES

During the 1977 legislative session, Montana law was amended to comply with the Federal Safe Drinking Water Act. The Montana program requires frequent monitoring of community water supplies. The regulations also require that, in instances where the drinking water supply is not meeting the new standards, immediate action must be taken to correct the situation and all customers of that supply must be informed of the situation through the local media and notices in water bills.

There are over 1,000 public water systems throughout Montana which come under the jurisdiction of the Act. The smaller community water supplies will be supervised by the local health department through contract arrangements with the state.

THE CENTER FOR INNOVATION (CFI)

A unique concept in the United States and for the past 15 months a successful program within the Old West Region, the Butte-based Center for Innovation (CFI) provides personalized technical, managerial, financial, and marketing assistance to inventor/entrepreneurs. Since May 1977 the core staff of CFI field representatives and experienced administrators and businessmen has received more than 600 inquiries from hopeful inventors and small businessmen; technical and marketing evaluations have been conducted; patent searches have been arranged and patents applied for; numerous project development agreements have been devised and subcontracts signed; and licensing efforts on behalf of a wide variety of new products have been initiated throughout the region.

When evaluating a submittal for possible support, CFI examines the project, idea, or suggested business venture from several important criteria: (1) to what extent does the idea address the need to develop new or alternative sources of energy; (2) is the project technically and commercially feasible; and (3) how much does the project appear to be able to favorably affect the local and regional economy in which it is developed. Helping new and innovative small businessmen enter the

marketplace and thereby creating jobs is perhaps the highest priority of the CFI operation.

The CFI concept answers a need in the Old West Region that has previously been unsolved--that of a private nonprofit organization for individual inventor/entrepreneurs to turn to when advanced technologies and increasing government red tape make entry into the innovation process difficult.

PART 4

ECONOMIC DEVELOPMENT

During the early 1970s, substantial industrial development took place in Montana. In addition to the growth that has taken place, there appears to be a shift in type of development taking place. Agricultural production and its related industries continue to generate the largest percentage of the state's revenue. However, there has been an increased development in mining, gas and oil fields, wood products industries, manufacturing, and tourism.

Most likely the resource-based industries of the state (agriculture, mining, and wood products) will continue to determine the economic future of the state. This natural resource base will enable the state to specialize in providing raw material for the further development of its primary industries. Structural changes have taken place and will continue, but there is little doubt that the state's future growth and development will be tied directly to the health and well being of the primary sectors of the economy.

Historically, Montana's economic role has been largely resource rather than market oriented. However, substantial secondary industrial development is taking place in the state.

The development of manufacturing in no way indicates the total economic growth of the state. New businesses are starting each month. A total of 131 new businesses were started from January to May in 1978. Monthly totals of new business starts are anticipated to be larger in the spring and summer months. The figures in table 17 will serve to indicate the areas and magnitude of business growth in the state. Table 17 shows the new business starts by county for 1977-1978.

TABLE 17

NEW BUSINESS FIRMS IN MONTANA

Major Industry Group	Month		Year	
	May '77	May '78	1977	++ 1978
Agriculture, Forestry, Fisheries	33	36	137	168
Mining	12	8	64	33
Contract Construction	72	132	352	411
Manufacturing	25	26	93	97
Transportation, Communication, Electric, Gas, & Sanitary Services	15	16	69	78
Wholesale and Retail Trade				
Finance, Insurance, Real Estate	103	147	501	568
Services	126	127	610	607
Government	0	0	0	0
Not Elsewhere Classified	17	24	44	32
STATE TOTAL	443	559	2065	2196

+ New Business Firms to January to May 1978

Source: Montana Employment and Labor Force, Employment Security Division, Department of Labor and Industry, Helena, Montana, June 1978, p. 40.

Another measure of the health of the state is expressed in the form of economic indicators. The indicators or seasonal factors have a positive effect on Montana's economy. The six leading indicators are employment, average weekly hours worked, total accessions, layoffs in manufacturing, building permits, and average weekly initial unemployment insurance claims.

Although slightly below the 1972 index figure, the 1977 composite index and early 1978 index reflect a positive trend. The composite index of six indicators for 1972, 1977, and five months of 1978 is as follows:

	1972*	1977	1978
January	107.8	98.2	100.1
February	102.0	99.2	100.2
March	97.4	99.0	103.1
April	117.1	99.1	103.3
May	104.7	97.1	102.4
June	101.7	97.5	---
July	99.3	95.8	---
August	96.2	97.1	---
September	93.8	98.1	---
October	103.5	98.1	---
November	108.1	98.0	---
December	105.0	98.5	---

*Composite index of six economic indicators 1972 = 100.

AGRICULTURE IN THE ECONOMY

The agricultural industry is the largest single producer of cash receipts in Montana. As a single industry, agriculture produces approximately 44 percent of the state's income. Agriculture continues to be a major factor determining the state's economic condition. New developments in management techniques, production, and marketing systems will further enhance agriculture's contribution to the economy.

Farm Numbers and Ages of Farm Operators

The number of farms in Montana continues to decrease each year. In 1978, according to the Crop and Livestock Reporting Service, there were 22,900 farms in Montana. This figure represents an approximate 11 percent decrease in all farms since 1970. This decline compares with an approximate 10.7 percent reduction in the number of farms nationwide. The decline as shown in table 18 is confined to those farms with values of sales below $40,000. The average size farm in 1969 was 2,522 acres and in 1970 the average size farm had increased to 2,665 acres.

While farm numbers have declined, there has been a great improvement in the state's road system which makes distant towns as accessible as nearby towns were in the past. With the decline in farm numbers, there also has been a concentration of farm ownership, few owner-operators--but not fewer farm laborers. The result has been a shift in income distribution with, in some cases, farm owner-operators residing in larger communities and commuting to their farms while the lower income hired people remain in the most rural of the rural areas. In view of declining farm numbers, the following section will explain some of the problems that exist in the state's agricultural sector.

TABLE 18

NUMBER OF MONTANA FARMS BY VALUE OF SALES

Value of Sales	All Farms 1969	All Farms 1974	Percent Change
$200,000 and over	194	602	+310
$100,000 to $199,999	452	1,540	+340
$40,000 to $99,999	2,448	5,358	+218
$10,000 to $39,999	11,064	8,207	- 74
$2,500 to $9,999	6,175	4,175	- 67
Under $2,500	4,525	3,340	- 74

Source: U. S. Department of Commerce, Bureau of the Census, 1974, Census of Agriculture, Montana, Vol. 1, Part 26, p. XIII.

TABLE 19

AGES OF MONTANA FARM OPERATORS IN 1974

Age Group	Farm Sales Over $2,500	Total of All Farms
Under 25 years	399	474
25 - 34 years	2,026	2,391
35 - 44 years	3,270	3,912
45 - 54 years	5,018	5,762
55 - 64 years	5,395	6,069
65 years and over	2,762	3,307
Average age	51.2	51.1

Source: U. S. Department of Commerce, Bureau of the Census, 1974 Census of Agriculture, Montana, Pp. 1-6, Vol. 1, Part 26, table 9.

Montana Farm Programs--
Administered by Agricultural Stabilization and Conservation Service

The 1977 Food and Agriculture Act was designed to help farmers and ranchers obtain a fair financial return from their operations. Therefore, 1977 was a transition year as new programs were initiated in the state to bolster farm income. Some immediate response was noted, but because the new programs are based on long-range objectives, the total effect cannot be measured at this time.

ACP (Agriculture Conservation Program)

ACP is the principal channel through which the federal government shares with the farmers and ranchers the cost of carrying out approved soil, water, woodland, pollution abatement, and wildlife conservation practices on their land to help maintain the productive capacity of American agriculture. Cost sharing with the public funds is concentrated on measures on farmland which the farmer or rancher would not perform without cost sharing, thus assuring that the public tax dollar is buying needed conservation beyond that which the farmer or rancher could accomplish with his own resources. The program is administered by a farmer-elected county ASC committee in each county.

All agricultural producers were eligible to apply for ACP cost sharing. The cost-sharing levels varied from 50 percent to a maximum of 75 percent of the cost of performing approved practices, depending

on local priorities established by the local development group. In order to receive cost sharing, the farmer or rancher must complete the practice according to recognized standards and specifications developed by Montana State University, the Soil Conservation Service, or the U. S. Forest Service, depending upon the type of practice.

The program participation for 1977 was:

Farms participating in all counties - 4,361
(Total all programs)

Cost-shares earned - $4,527,798

In addition, emergency restoration measures are available in the event of floods, drought, or other natural disasters.

Water Bank Program

The Water Bank Program has as its goal the preservation, restoration, and improvement of the nation's wetlands for the benefit of migratory waterfowl. The program provides lands used by waterfowl for nesting. The program began in 1972 and the counties are as follows:

TABLE 20

WATER BANK PROGRAMS BY COUNTIES

County	No. of Agreements	Wetland Acres	Adjacent Upland Acres	Annual Payments
Daniels	30	392	1,072	$13,517
Glacier	2	62	251	3,369
Pondera	14	230	446	7,178
Roosevelt	11	387	838	10,744
Sheridan	25	710	3,363	40,246
Teton	4	220	601	8,910
Toole	15	342	769	10,569
TOTALS	91	2,343	7,340	94,533

Storage Facility Loans

The Farm Storage and Drying Equipment Loan Program is designed to help producers provide adequate on-farm facilities for storage and

handling of their production. With sufficient storage, a producer may hold his grain, take a price support loan if necessary, and wait for the best possible marketing opportunity.

A combination of adequate storage and price support helps producers spread marketing over the year and relieves pressure on transportation and commercial storage facilities at harvest time.

Commodity Loans and Purchases

Price support loans and purchases are basic methods of making price support available to agricultural producers. Other methods of support include direct purchases and payments.

Loan programs enable producers to exercise greater independence in their marketing operations. They give the farmers the opportunity to spread out marketing over a larger part of the year by holding their crops and still obtain ready cash for immediate needs. If the opportunity does not arise for the producer to profitably pay off his loan and sell the grain on the open market, the loan may be satisfied in full by paying the service fee and turning the collateral over to the Commodity Credit Corporation.

Price support in the form of loans and purchase agreements is available on wheat, barley, oats, rye, corn, honey, and flaxseed.

Loans may be obtained on grain stored either on farms or in the warehouses. Generally, loans on farm-stored grains are made at the county basic price support loan rate on a maximum of 90 percent of the certified quantity or 100 percent of the measured quantity of grain in storage. A protein premium may be obtained on farm-stored wheat if the producer requests it and pays for the sampling and testing. If the farm-stored grain is delivered to Commodity Credit Corporation at maturity date, settlement of a loan or purchase agreement settlement is computed on the basis of the actual quantity and quality of grain delivered.

Loans are made on grain stored in warehouses on the basis of the actual quantity and quality of the grain as represented by the warehouse receipt.

Forestry Incentive Program

The Forestry Incentive Program was created by Congress to share the cost of: (1) tree planting and (2) improving stands of existing forest trees. The purpose of both practices is to produce timber and improve the environment and to increase growth of selected trees on

sites suitable for production of saw timber. The demand for wood in this country is expected to exceed the supply within 30 years unless more trees are planted per year and much more forest land is placed under forest management. Most smaller landowners who control the majority of forest lands in the nation do not have the funds to make such long-term investments. This program is designed to share this expense with the small owner. During 1977 FIP was offered only in nine Montana counties with higher production potential.

Emergency Feed Program

The Emergency Feed Program was authorized by Public Law 95-113 and was signed by the President on September 29, 1977.

The objective of the EFP is to provide assistance to eligible livestock owners by sharing the cost of feed which must be purchased in quantities above normal due to natural disaster. The assistance is for the preservation and maintenance of eligible livestock where, because of flood, drought, fire, earthquake, storm, or other natural disaster, the county ASC committee determines an emergency exists.

Livestock owners must meet the following eligibility requirements to qualify for program assistance:

1. Have suffered at least 40 percent loss in livestock feed normally produced on the farm(s).

2. Not have sufficient feed for eligible livestock for the feeding period.

3. Be required to make feed purchases in quantities larger than normal.

Applicants meeting eligibility requirements are notified of the pounds of feed eligible for payment (based on feed grain equivalents). They purchase feed and the assistance paid is 50 percent of the cost--not to exceed $.02 per pound of feed grain equivalent.

The program was utilized extensively in the 1977-1978 feeding season due to severe drought in 1977 and heavy snow cover in northern and eastern Montana which prevented normal winter grazing.

Wool Support

Payments on shorn wool have been authorized since 1954 (National Wool Act) as a means of encouraging increased domestic production. The objective of the program is to encourage production of approximately

300 million pounds of shorn wool annually at prices fair to producers and consumers and in a manner which will have the least adverse effect on foreign trade.

Computation of the incentive payment as a percent of each grower's return encourages him to produce quality wool that the market demands and to market it at best price obtainable.

Incentive payments are also made on the basis of the live weight of the shorn lambs marketed. This is designed to discourage unusual shearing of lambs prior to marketing.

Wheat and Feed Grain Programs

The "Food and Agricultural Act of 1977" provides for a continuation of payment supplements in the form of deficiency and disaster payments as initiated in the Agriculture and Consumer Protection Act of 1973 with some major departures from previous programs. Allotments for wheat and feed grains are suspended for the four years of the program--1978 through 1981--with a new concept of "normal crop acreage" (NCA) substituted for a form of acreage control or limitation. The provisions for disaster payments expire at the end of 1979 with direction given to the Secretary of Agriculture to propose a new and comprehensive disaster insurance plan for possible legislation.

As a condition of eligibility for deficiency and disaster payments as well as price support, the Secretary has the authority to require a set-aside of acreage, the amount to be determined each year based on projected production, carryover of wheat and feed grain stocks, and projected uses. For 1978 the set-aside requirement was 20 percent with feed grain yet to be determined.

Eligible producers in 1978 will receive deficiency payments based on the difference between the higher of the national average market price for the five marketing months of June-October or the national average loan price of $2.35 and the target price of $3.40 per bushel. Participating producers will also be eligible for disaster payments due to crop losses from natural disasters and for price support on major commodities.

Beekeeper Indemnity Program

The BIP provides for payments to beekeepers who, through no fault of their own, suffer losses of honeybees due to application of USDA approved pesticides. The payments were based on the degree of loss as follows:

1. $22.50 for each colony destroyed.

2. $15.00 for each colony severely damaged.

3. $7.50 for each colony moderately damaged.

4. $7.50 for each queen nucleus destroyed.

Five counties filed claims and they are as follows:

County	Number of Claims	Indemnity
Beaverhead	1	$6,577.00
Big Horn	1	3,742.00
Powder River	1	135.00
Teton	2	5,782.00
Yellowstone	2	2,377.00
TOTALS	7	$18,615.00

SMALL GRAINS IN MONTANA

Small grains are grown on a large portion of Montana's cropland. Prices fluctuate based upon national supply, policy, and international supply and demand. Montana small grain production continues to increase. Wheat production for 1978 is expected to total 152.0 million bushels; barley production is expected to reach 56.6 million bushels; and oats production is expected to be 10.3 million bushels. Much of the increase in production of wheat and barley is due to a 71 percent increase in acres harvested in 1978. Montana weather conditions have a tremendous effect on the yield of all small grain.

Grain prices are highly dependent upon the domestic farm program and demand from foreign buyers. Planning horizons cannot be long because of the uncertainty of the future. The release of set-aside acres over the past five years has had considerable effect on the bushels of small grain produced, especially wheat.

Currently, efforts are being put forth by the marketing section of the Montana Department of Agriculture and the Montana Grain Growers Association to develop a more stable foreign market for Montana grain. During the past five years, grain exports have had a tremendous effect on the domestic economy.

A number of provisions of the Food and Agriculture Act of 1977 will continue to affect grain prices. The three basic guidelines for commodity policy include:

1. Loan and target prices to provide economic protection when prices are low.

2. An expanded reserve policy which encourages farmers to store more grain on the farm.

3. Encourage burden sharing arrangement on stocks and adjustments to production for wheat and greater market access for all commodities.

Other crops are being grown in somewhat limited acreages in the state as an alternative or a part of a wheat-barley rotation. Safflower, sunflowers, and mustard are being planted in various parts of the state. Product processing and marketing will probably determine the economic importance of these crops in the future.

A marketing information service called "dial-a-price" is available to wheat producers. The service is provided by the Montana Wheat Research and Marketing Committee. A grower may call day or night and receive instant access to the latest market news and price information. A three-minute tape-recorded message supplies the producer with specific information on export activities, grain futures, Montana prices, comments on market reactions, and the closing prices of wheat futures in Chicago, Kansas City, and Minneapolis. The west coast market is emphasized. The toll-free number for the service is 1-800-332-5906.

The primary responsibility of the marketing program of the Montana Department of Agriculture is to identify major needs and establish priorities in marketing from which to develop programs that will be directed toward a solution to such needs. In addition, the marketing program works to develop programs directed at new markets and expansion of existing markets, particularly in the international marketing area.

The Marketing Bureau also works with the Foreign Agricultural Service of the USDA in disseminating information regarding foreign trade shows and export opportunities. The Marketing Bureau participates in several regional organizations that promote marketing activities--both domestic and international. Other functions in the Department's marketing program include:

1. Financial verification of credit on specific potential foreign buyers.

2. Providing assistance for arranging transportation for foreign shipments.

3. Providing label clearance for entry into foreign markets.

4. Providing economic and market information of specific countries.

5. Placing advertising of Montana products in foreign countries.

Services that are available to the producer provided by the Plant Industry Division of the Montana Department of Agriculture that relate to marketing are as follows:

1. Federal-state grade commodity inspection service upon request from producers of grain, seed, seed potatoes, Christmas trees, and dry beans. The grade certificate provides the producer a nationwide standard for marketing the specific commodity.

2. Assistance to producers in controlling harmful insects/disease problems that may affect quality and production factors. Such services are directed to the potato, cherry, beekeeping, mint production, etc.

3. "Point of origin" inspection for specific marketing programs to ensure quality control. Such programs include the Master Shipping Program which allows the shipment of cherries without fumigation.

4. Quality control and assurance programs to the general public on products merchandized within the state. Such programs fully funded by industry include sample and product analysis of feed, fertilizer, and small seeds sold directly to the general public.

Grain Standards

The grain laboratory of the Montana Department of Agriculture provides grain grading and protein testing services for the producers of Montana. The laboratory is located at Great Falls and staffed with inspectors licensed by the U. S. Department of Agriculture. The inspectors grade and test grain samples sent into the lab and also officially sample box cars for testing. The grain lab is funded completely through the fees collected from testing. No tax dollars are used to fund this operation.

The protein testing section of the laboratory is a member of the Pacific Northwest section of the American Association of Cereal Chemists. This membership provides a check on protein testing procedures by means of a collaborative check sample.

Wheat Research and Marketing

The Wheat Research and Marketing Committee of the Montana Department of Agriculture assists the Montana grain producer in the development of varieties of grain, provides research for disease prevention, and develops new markets for Montana-grown grains. Their activities are financed from a one-fourth-cent-per-bushel assessment on wheat marketed and one-half-cent-per-hundredweight on barley sold. No appropriated tax money is used by the committee. Specific activities of the committee have resulted in equalizing freight rates, obtaining boxcars, new wheat varieties, promoting an international market, supporting of research in plant disease control, informing growers of market developments, promoting wheat consumption, studying new ways of utilizing wheat, and in general providing assistance to Montana's grain producers.

Hail Insurance

The Hail Insurance Unit of the Montana Department of Agriculture offers Montana grain producers low cost insurance protection against losses to grain crops by hail damage. The Hail Board provides the grain producers insurance adjustments and pays the producers for all proven losses. After all losses are paid in full each year, the State Board of Hail Insurance establishes a refund of surplus monies to be returned to each policy holder. This program has been in continuous operation for the past 58 years. All funding comes from the Montana grain producers. Three percent of the total revenue goes to the state and county government to cover administrative costs.

FORAGE IN MONTANA

Montana's livestock industry is dependent upon an annual supply of over four million tons of hay produced under irrigated and dryland conditions. Montana ranked 12th in the nation in hay production in 1978. The 1975 yield per acre for all hay, including alfalfa, under irrigated conditions was 2.2 tons per acre and 1.4 tons per acre under dryland conditions.

Alfalfa (mainly alfalfa/grass mixture) hay is grown on approximately 55 to 60 percent of the irrigated acreage. Th remainder of the hay is generally a clover/timothy mixture, small grains, and wild hay.

The average yield per acre of hay in Montana over the last ten years has been slightly over two tons per acre. Some operators are producing five to seven tons of hay per acre of both alfalfa and alfalfa/grass mixture. Research by the Montana Agricultural Experiment Station shows that the higher average production could be obtained by using good cultural practices on more productive soils.

Forage production in Montana is poor for the following reasons: (1) on most farms forages are usually neglected; (2) hay crops are generally seeded and grown on the poorest land; (3) weed control and other husbandry practices receive secondary attention; (4) stands are too old; (5) phosphorous levels are too low on many legumes; (6) the amount of nitrogen is insufficient on grasslands; (7) irrigated forages are usually overirrigated; (8) irrigation systems are often inefficient; (9) poor varieties are grown; (10) perennial crops are grown where annuals would be more productive; (11) irrigated pastures are not rotated frequently and not fertilized adequately, consequently, they are invaded by undesirable species and lose productiveness; and (12) demonstrational type research is not available to show whether perennial forages, if given the proper management and planted on Class I or II land, can be economically produced.

If a shift to cattle feeding in the dryland areas occurs in any large number, there will be a need for dryland forage production on land normally used for grains. Economic data are needed for annual forage crop production. Corn, peas, sunflowers, and green chopped small grains are potential forages for livestock feeding.

Research on seed yield of grasses and legumes indicates that many areas of Montana have the capacity for good seed production. Yields as high as 1,400 pounds per acre of Kenmont fescue have been reported. Why this industry has not grown is probably due to: (1) lack of a marketing structure; (2) poor seed production due to improper cultural practices--primarily weed control; (3) lack of insect pollinators for legume seed production; and (4) improper machinery for harvesting and cleaning. More education and research is needed to develop this potential industry.

LIVESTOCK IN MONTANA

The livestock industry in Montana ranked 32nd in the nation in 1975. It will continue to be one of the state's largest single industries.

Beef Cattle

In 1976 almost 38 percent of the cash receipts from agricultural marketings in Montana was from cattle and calves. This share increased from 34 percent in 1975. The Montana beef cattle inventory suffered as the result of a drought during 1977 and low prices for an extended period of time. There were an estimated 2,570,000 head of cattle and calves in Montana on January 1, 1978. Total numbers have been declining for the last four years with an approximate cutback of 810,000 head.

Montana has been a supplier of feeder and stocker cattle for midwest feedlots. This pattern is changing with more calves and yearlings wintered, backgrounded, warmed up, and some finished within the state. Custom feeding provides ranchers with the opportunity to keep ownership of their cattle during the finishing process and to secure the feeding profits.

Cattle marketing has been improved by development of the producer-owned market information service "Cattle Fax," a system of teletype-telephone communication centers staffed by market and analysts who relay up-to-the-minute information to subscribers. The service covers 41 percent of the cattle on feed in 23 eastern states. In Montana it has expanded to include cow-calf producers.

Some cattlemen are using European breeds in attempts to wean heavier calves and faster gaining steers. Crossbreeding is becoming commonplace.

Cattle Feeding

The total number of feedlots with less than 1,000 head decreased from 580 in 1962 to 387 in 1971. In 1970 the 77 feedlots with 1,000 head and over marketed 81 percent of the state's fed cattle output. In 1971 the 40 large feedlots marketed 95 percent of the total.

TABLE 21

MONTANA CATTLE FEEDLOTS BY SIZE AND CATTLE MARKETED--1970-1977

Year	Feedlot Capacity				All Feedlots	
	Less than 1,000 Head		1,000 Head and Over			
	No. of Lots[1]	Cattle Marketed	No. of Lots[1]	Cattle Marketed	No. of Lots[1]	Cattle Marketed
1970	424	34,000	77	150,000	501	184,000
1971	387	35,000	86	200,000	473	235,000
1972	317	26,000	72	221,000	389	247,000
1973	236	42,000	69	173,000	305	215,000
1974	211	26,000	65	161,000	276	187,000
1975	102	23,000	50	109,000	152	132,000
1976	71	4,000	49	104,000	119	104,000
1977	61	6,000	40	128,000	101	134,000

[1]The actual number of lots should be viewed with caution. These numbers are obtained by sample and should be considered as approximations. Most of the "error," however, is in the number of small lots. The number of large lots is fairly accurate.

Source: U. S. Department of Agriculture, Statistical Reporting Service, Helena, Montana.

Cattle feeding is looked to as one means of expanding Montana's economic base. However, competition from other feeding areas for Montana feeder cattle and grain and distance from markets and slaughter facilities may limit Montana cattle feeding to a lower level than cattle and feed production might indicate. Disposal of solid and liquid waste is a problem for old as well as new feedlots.

Investor money from out-of-state wealthy people is underwriting some feedlot development. This is causing concern among some Montanans that producers and feeders may lose control of their enterprises through integration from the top of the market chain. Those concerned are looking for a method of integrating production, finishing, and packing from the producer up--possibly through cooperatives.

Livestock feeding is a highly competitive enterprise. Investors should consider the environmental impact as well as the supply of feed, feeder cattle, and other economic criteria before determining the location of a large feedlot.

The competitive position of Montana with regard to investment costs, annual fixed costs, and labor costs do not appear to give Montana any advantage over other states. Once capital investment has been committed to feedlot development, feed costs become very important. Feed costs per pound of gain currently range from one to three cents lower in Montana than in other western states. However, this advantage is largely offset by higher freight costs for market cattle.

SHEEP

Sheep numbers in Montana have declined in the last ten years. In 1970 sheep numbers were approximately 1,018,000 head of sheep and lambs on farms and ranches. Montana had 570,000 head of sheep in 1977 which represented the lowest numbers since 1881. Still Montana ranks eighth nationally in sheep numbers. The decline in sheep numbers has taken place in large ranch sheep operations. In general, the sheep industry is promoting smaller flocks on more farms. The small flocks can be easily integrated into a farming operation and produce a second cash crop.

Many sheepmen with large flocks depend upon summer range allotments under Forest Service and Bureau of Land Management jurisdiction. Some grazing allotments have been withdrawn or converted to other uses. Labor problems are common. Herders and lambing help are difficult to obtain or are insufficient on larger ranches.

Sheep may offer an economic opportunity to the small farmer looking for alternative enterprises. Entry into a farm flock sheep enterprise requires a small investment. Native or introduced pasture grasses, alfalfa, and barley will carry sheep well throughout the year. Existing sheds or barns will serve early lambing.

The major predator of sheep is the coyote. The problem with coyotes seems to have increased with the federal government's ban on the use of 1080 poison on federal lands and on interstate shipment of the poison. In effect, the ban on interstate shipments eliminates use of the poison on private land. The major predators are more easily controlled by small flock owners than by large ranch operators.

Demand for lamb and wool is strong. Demand for lamb is in excess of U. S. production. There appears to be room for expansion of the sheep industry. Within Montana, an increase in sheep numbers would help maintain the packing plants that process sheep and lambs.

SWINE

The potential for swine production in Montana is good. Most of the increase in hog production has been in confinement housing. This offers the producer an opportunity to produce large numbers of hogs with small amounts of labor. Investment in confined housing is about $2,000 per sow for a complete farrow to finish enterprise.

Annual pig crops and annual marketing in Montana are shown in table 26.

TABLE 22

MONTANA ANNUAL PIG CROP--1972-1977

	1972	1973	1974	1975	1976	1977
Pig Crop	- - - - - - - - Thousand Head - - - - - - - - -					
	348	357	301	286	270	285

About 478,300 hogs were slaughtered in Montana during 1977. Over one-half of the hogs slaughtered were imported from the midwest. This indicates that nearly half the hogs produced in Montana are shipped alive to the west for slaughter.

Another major factor limiting Montana hog production is management. Confinement production is challenging and requires a very exact knowledge of hog production. Other major problems are marketing, transportation, and cooperation among producers.

Hog production provides an opportunity to increase production and the economic base of a farm without buying additional land. However, wide variations in prices must be considered in planning a hog operation.

DAIRY

Montana's 27,000 dairy cows produced slightly over 294 million pounds of milk in 1977. Montana's 340 dairy producers realized 29 million dollars from the sale of milk. This is an average of $86,000 each in gross income. This $29 million does not include the income realized by milk processors and retailers in the state. Approximately 80 percent of the dairy producer's gross income is spent for feed, labor, supplies, insurance, and dairy farm production cost. Of the state's cows, 22,833 are on Grade A dairies. About 80 percent of the milk produced is used as fluid milk and the other 20 percent is used to make cheese, butter, ice cream, and other dairy products.

Although the number of dairy cows in Montana has been relatively stable during the past four years, some increase in cow numbers, milk production per cow, and total milk production has occurred during the past two years. This trend is expected to continue during the next few years. Throughout the entire United States, cow numbers are decreasing. In the period 1969-75, Montana herd size increased to an average of 80 cows. An increase in herd size is expected to continue.

FARM-RANCH MANAGEMENT

From 1968 to 1978 average farm-ranch size in Montana increased from 2,406 acres to 2,712 acres--a 13 percent increase over the period. The number of farms and ranches decreased from 27,100 to 22,900 during the same period. The total value of land and buildings increased from slightly over $4 billion to $9.6 billion from early 1971 to early 1977. The average per farm value of real estate was over $400,000 in February of 1971.

Total average net income per farm dropped from $22,063 in 1973, the year of high cattle and grain prices, to $10,452 in 1976 (table 23). Fluctuating product prices and increasing input prices have drawn the concern of farmers and ranchers toward better management information and management techniques.

It became important for producers to know their cost of production. Realizing this, the Montana Wheat Research and Marketing Committee funded a cost of production project conducted by the Montana Cooperative Extension Service in 1976-1977. The funding was extended into 1977-78, at which time the Montana Soil Conservation Service also participated in the study. This information is widely used by farmers for planning and decision making and is also used by lenders, appraisers, accountants, attorneys, and others.

Management-marketing schools, lasting one week, have been conducted by Extension Economists. These producer schools are designed to provide in-depth management training to help producers make decisions in periods of risk and uncertainty.

The "Computer Age" has arrived for Montana farmers and ranchers. AGNET, a computerized agricultural network developed by the University of Nebraska, was made available to Montana producers in August of 1977. A grant from the Old West Regional Commission to the Montana Extension Service covers all costs until mid February of 1980. The grant provided for 20 remote terminals to be located around the state. Thirty additional terminals have been purchased, making AGNET available in every Montana County Extension office. Numerous management and production decision-making programs are available.

From the financial management point of view, many Montana producers have experienced declining net farm incomes since the early 1970s. Averages, while sometimes misleading, are shown in table 23.

In 1976 and 1977 many producers had to restructure their financial packages because of cash flow problems. Short-term debt has been refinanced to long-term debt to alleviate short-run cash flow problems.

Rising machinery prices have made replacement difficult in recent years. In 1973 and 1974 many producers purchased new machines and then found it difficult to complete payments with lower farm product prices of subsequent years.

TABLE 23

MONTANA FARM AND RANCH FINANCIAL PICTURE--1973-1977

Item	Year				
	1973	1974	1975	1976	1977[1]
	Million Dollars				
1. Cash Receipts from Livestock	572.1	433.1	419.9	453.4	513.8
2. Cash Receipts from Crops	554.9	754.9	585.5	543.6	443.4
3. Government Payments	65.0	15.0	9.4	10.5	61.4
4. CASH RECEIPTS FROM FARMING	1,192.0	1,203.0	1,014.8	1,007.5	1,018.6
5. Non-Money Income[2]	58.7	77.3	84.3	94.0	
6. Other Farm Income	9.9	10.9	15.0	16.6	
7. REALIZED GROSS FARM INCOME	1,260.6	1,291.3	1,114.0	1,118.0	
8. Farm Production Expenses	803.0	853.8	867.0	917.9	
9. REALIZED NET FARM INCOME	457.6	437.5	247.0	200.0	
10. Net Change in Farm Inventories	96.2	-34.7	94.7	44.5	
11. TOTAL NET FARM INCOME	553.8	402.8	341.7	244.6	
	Unit				
12. Number of Farms	25,100	24,600	24,200	23,700	23,300
13. Realized Gross Income/Farm	50,222	52,492	52,492	47,406	47,778
14. Realized Net Income/Farm	18,231	17,785	10,510	8,550	
15. TOTAL NET INCOME/FARM	22,063	16,376	14,540	10,452	

Source: Farm Income Reports--Crop and Livestock Reporting Service, SRS, Helena, Montana

[1]Details for 1977 not yet published.
[2]Largely value of home consumption and gross rental value of farm buildings.

GREEN BELT ACT

In Montana a significant amount of legislative attention has focused on the development and application of a special tax structure for agriculturalists. "Green Belt" legislation, as it is frequently called, is simply a differential taxation for land used for agricultural production purposes. Without such legislation, assessors must appraise land at fair market value rather than on its value for agriculture purposes. Traditionally, taxes have increased regardless of the return to the operation.

The 1973 Montana differential assessment law stated that land was being used for agricultural purposes if:

1. it was actually devoted to agriculture;

2. the area of land was at least five acres and the gross value of grazing land and field crops produced thereon, combined with any payments received under a cropland retirement program, totaled at least $1,000 per year; and

3. its agricultural production accounted for 15 percent or more of the owner's annual gross income (Section 4, Chapter 512, Session Laws, 1973).

Other legislative action in 1974 refined the original criteria which specified "devoted to agriculture use." Finally, the 1975 Legislative Assembly amended the eligibility section of law to read as follows:

1. Land which is actively devoted to agricultural use shall be eligible for valuation, assessment, and taxation as herein provided each year it meets either of the following qualifications:

   a. The area of such land is not less than five (5) continuous acres when measured in accordance with provisions of Section 74-437.6, R.C.M. 1947, and it has been actively devoted to agricultural use during the last growing season and it continues to be actively devoted to agricultural use which means:

      (i) it is used to produce field crops including, but not limited to, grain, feed crops, fruits, vegetables;

      (ii) it is used for grazing, or

      (iii) it is in a cropland retirement program; or

b. It agriculturally produces for sale or home consumption the equivalent of fifteen percent (15%) or more of the owner's annual gross income regardless of the number of contiguous acres in the ownership.

2. Land shall not be classified or valued as agricultural if it is subdivided with stated restrictions prohibiting its use for agricultural purposes.

3. The grazing on land by a horse or other animals kept as a hobby and not as part of a bonafide agricultural operation.

FARM REAL ESTATE DEBT

Individuals and the Federal Land Bank are the major real estate lenders in Montana (table 24). They are followed by life insurance companies, the Farmers Home Administration, and commercial banks. In the last eight years the Federal Land Banks have shown the largest percentage increase. Loans outstanding with the FmHA have also increased significantly the last several years. FmHA has made a sizeable number of emergency loans in 1977-78 due to drought and severe winter weather.

TABLE 24

FARM REAL ESTATE DEBT IN MONTANA: AMOUNT OUTSTANDING BY LENDER AS OF JANUARY 1, 1971 TO 1978

Year	Federal Land Banks	FmHA	Life Insurance Companies	All Operating Banks	Individuals and Others	Total Farm Real Estate Debt
	- - - - - - - - - - - - - - - - - - Thousand Dollars - - - - - - - - - - - - - - - - - -					
1971	188,571	40,314	109,500	14,941	306,610	659,936
1972	211,460	43,199	114,400	16,709	321,404	707,172
1973	236,478	57,712	114,900	16,197	362,095	787,382
1974	269,823	61,342	127,100	18,319	428,871	905,455
1975	310,306	67,344	138,300	20,659	439,624	976,233
1976	368,278	71,553	149,500	24,763	483,592	1,097,686
1977	426,311	81,161	166,300	23,605	508,717	1,206,094
1978	493,521	90,622	185,424	27,725	526,157	1,323,449

Source: Years 1970-1975--Agricultural Finance Statistics, AFS-3, Economic Research Service, USDA, July 1976.
Years 1976-1978--Farm Real Estate Market Developments, CD-83, Economics, Statistics, and Cooperatives Service, USDA, July 1978.

JUNIOR LIVESTOCK/AGRIBUSINESS LOAN PROGRAM

The Rural Development Program within the Montana Department of Agriculture operates on assets received through the Rural Rehabilitation Use Agreement between the State of Montana, acting through the Director of Agriculture, and the Unites States of America, through the Farmers Home Administration. The Director of Agriculture administers the assets through the Rural Development Program. These programs are established to help rural Montana advance and become a higher educated, more active and effective part of their community and state.

The Junior Livestock Program was developed in 1973. It is designed to encourage members of farm youth organizations to develop productive and educational agricultural projects. This loan program also provides for additional facilities in marketing, processing, and distributing agricultural products.

Loans are avilable for youth groups for the development and/or completion of community-type projects. This program encourages and assists farm youth groups in establishing and implementing projects and programs for boys and girls from lower income farm and ranch families.

A federally insured student loan program has been entered into in 1974 with the backing of the Department of Health, Education and Welfare. This program assists members of Montana farm families in obtaining a more secure future and the ability to make a maximum contribution toward the development of the community and state in which they live.

The Rural Development Program cooperates with the FmHA in making (participating) real estate loans to help Montana farmers and ranchers secure funds for their real estate purchases.

In 1978 over 50 farm and ranch youth throughout Montana participated in the Department of Agriculture's Junior Livestock/Agribusiness Loan Program. Young people who are active in 4-H or FFA may be eligible for loans of up to $5,000.

STATE LANDS

The U. S. Congress, by terms of Montana's Enabling Act, granted more than five million acres to the State of Montana for the support of common schools. This grant, plus various institutional grants, comprises the Montana state trust lands. On June 30, 1972, 5,121,596 acres were administered by the State Board of Land Commissioners. Approximately 4.14 million acres are classified as grazing; 509,000 as agriculture; and 490,000 as forest land.

In fiscal year 1978, agricultural rentals were $4,453,652; grazing rentals, $1,923,235. These rentals are set by statute (Sections 81-402 and 81-433). Grazing rentals are charged on the carrying capacity of each tract as determined by Departmental appraisal. A substantial number of state leases are held under competitive bid.

Section 81-421 authorizes lessees to place improvements on state lands, subject to Department approval. No rental adjustment is made, but the lessee is protected by statute to the extent that a new lessee must compensate for the reasonable value of such improvements. All state leases are renewable for a five- or ten-year period, with a preference right to the former lessee.

In 1967 the Montana legislature authorized the Department to use 2.5 percent of rental income for the purpose of preserving the state land resource or improving the revenue thereon. A number of projects has been completed (irrigation, sagebrush removal, range renovation, etc.). Where state funds are invested, a supplemental lease agreement is developed to assure that income to the trust will be enhanced.

The 1969 legislature approved the application of the multiple use concept for state lands. To intelligently implement that concept, the Department is engaged in a resource inventory program to identify the present and future resource potential of state tracts. It is hoped that, as a result, state lands may be more effectively used in terms of revenue and public benefit.

TRANSPORTATION

Many of Montana's rural development problems are related to both high transportation costs and a lack of adequate rail transportation. The cost of transportation represents a large percentage of the value of agricultural, forestry, mining, and other products that must be moved long distances to markets. The average freight rate for wheat in Montana is approximately 60 percent higher than it was six years ago. About 80 percent of Montana's grain is shipped by rail.

The geographic location in relation to markets places Montana in a disadvantageous competitive position. Long distance transportation of much of the state's grain and about one percent of the livestock depends on the railroads. Some competition is provided by the trucking industry, but because of the distance involved, it has had little effect on maintaining reasonable rail rates.

The Marketing and Transportation Programs have been combined because of the close relationship between the two individual programs. The rail planning functions have been transferred to the Department of Highways. The Department of Agriculture will provide assistance in rail planning activities in an advisory capacity.

Further, and most important, the Transportation program works with producers' groups, shippers, farmers, and elevators to solve transportation problems.

It costs $83 million annually to transport Montana grain. Because of this high cost, it becomes increasingly important that freight rate increases be held to the minimum to provide the railroad and truckers with a reasonable return which will enable them to continue to provide adequate and efficient service.

To further aid Montanans, the Department's transportation unit has developed a grain movement report to identify traffic flow patterns of Montana's grain production. Also, for legal research, a library of I.C.C. Decisions and Order, Hawkins Digest, and Commerce Law Services' I.C.C. Supplementary Reports has been developed.

WEEDS AND INSECTS IN MONTANA

Weeds continue to be a serious problem in Montana and everyone must be made aware of how to reduce weed populations. Emphasis must be on preventing new infestations and using the right control practices.

New weed infestations continue to reduce yields and lower crop quality. Proven tillage practices, crop rotations, and the use of recommended herbicides are necessary to minimize losses. Producers must continue to adopt new management practices and to apply the cultivation, competition, and chemical concept to prevent new weed infestations.

The Montana Weed Law was enacted in 1969 to minimize the perennial noxious weed problem. Every county now has a weed district with weed boards to administer the noxious weed law. Each weed district is responsible to control and prevent the spread of noxious weeds. The five noxious weeds listed under the law are: Canada thistle, leafy spurge, wild morning glory (field bindweed), whitetop, and Russian knapweed. Counties may add to the noxious weed list.

Many problems exist for some weed districts. It is difficult to administer a satisfactory weed control program with limited funds. Limited wages and short-term employment make it difficult to hire qualified personnel. Inadequate budgets may prevent keeping a well-qualified supervisor all year. Program supervisors should conduct educational programs every year and observe the success or failure of control practices used.

Educational programs are needed for government agency personnel as well as people within the county weed districts. A thorough understanding and use of alternative practices is necessary to conduct a coordinated control program.

On October 21, 1972, an amendement to the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) required the Environmental Protection Agency (EPA) to classify pesticides for restricted, general, or combined uses. Pesticides classified for restricted use may be used only by, or under the direct supervision of, a certified applicator. EPA has prescribed standards for certification of pesticide applicators. Montana's plan for a certification program was approved by EPA.

The state certification program was designed to ensure that users are competent to handle restricted use pesticides without danger to themselves, the public, or the environment. Most commercial applicators have attended training workshops throughout the state to qualify under the certification program. The Pesticide Unit of the Montana Department of Agriculture is the land agency to administer the program. The Montana Extension Service conducts the educational programs for commercial applicators, and county extension agents held workshops for private applicators (farmers and ranchers) to prepare applicators to meet certification standards.

The pesticide certification program has assured the public, pesticide use critics, and regulatory agencies that major pesticide uses are in the hands of qualified people. Certification will help to assure continued use of important materials and encourage development of new ones. It also will increase the application of integrated pest management systems where feasible.

Acknowledged success of pesticide certification, together with continuously improved capability to use pesticides properly, requires meaningful, workable certification programs.

The clean hay program is being considered by a number of additional counties to prevent introduction of noxious weeds into new areas. Gallatin County pioneered production of hay certified "noxious weed seed free" for packers and outfitters to use in the mountains to avoid contamination.

The principal insect pests in Montana depend to some extent on one's point of view. To the cattleman concerned with range and forage crops, grasshoppers are usually the number one pest. Alfalfa weevils are becoming more important as pests of alfalfa, being quite serious in some areas and almost absent in others. Each year finds different pests occupying positions of primary importance, but cutworms, armyworms, and army cutworms usually show up regularly in one place or another.

Corn rootworms are becoming a serious problem in the corn belt of Montana near Billings, and European corn borers and Mexican bean beetles are just now becoming established in that same area.

Fruit growers in the Flathead Lake area must contend with cherry fruit flies. The codling moth is the number one pest on apples for the backyard fruit grower. Potato growers have Colorado potato beetles, but are more concerned with aphids which transmit a virus disease.

The two most serious forest insect pests are perhaps the mountain pine beetle and the spruce budworm. Many trees in the westcentral part of the state are dead as a result of these two insect pests.

The backyard gardener is plagued with many insect pests, but among the top would be cabbage maggots, flea beetles, grasshoppers, and a variety of caterpillars and beetles.

The State Department of Agriculture has been very cooperative in seeing that effective chemicals are registered and available for insect control. However, some of the smaller communities may not have as great a selection of insecticides as one might wish.

The Apiculture Unit within the Montana Department of Agriculture assists both the commercial beekeeper as well as the hobbyist. The primary objective of the program is to maintain a healthy and prosperous beekeeping industry in Montana. A major function of the program is enforcement of Montana's agriculture laws and regulations. In performing this function, the program annually registers approximately 80,000 bee hives in 3,500 apiaries managed by 315 beekeepers. The division also inspects approximately 30,000 hives annually in order to control and reduce the incidence of honeybee diseases.

Another function of the apiculture program is to provide informational services about beekeeping to the people of Montana. This is in the form of training lectures, a quarterly beekeeping newsletter published in cooperation with the Montana State Beekeepers Association, and also publication of pamphlets pertaining to beekeeping.

AGRI-BUSINESS INDUSTRIES

Agriculturally related businesses in Montana have been on the decline for several years. The last brewery has closed. The Holly Sugar Beet refinery located at Hardin, Montana, closed in 1971. Its closing caught many producers without knowledgeable alternatives to producing sugar beets. Only a few packing plants and flour mills remain in the state. The number of country grain elevators has declined sharply in the last 30 to 40 years, although total capacity of those remaining has increased.

Problems associated with the success or lack of success of processing and handling plants in the state may be related to: (1) transportation; (2) size of plant as related to current technology and

economies of size; (3) managerial know-how; and (4) state and federal regulations.

Expansion of the slaughter industry is somewhat hindered by the fact that the slaughter industry is relatively small in Montana. Present slaughter capacity is more than adequate to meet the state's requirements. Finished beef is shipped to the western markets. Hog slaughtering is somewhat hindered by the lack of slaughtering facilities in some areas. Some producers prefer to ship live hogs directly to western markets. Trends toward decentralization of packing operations indicate that expansion of this industry could come about, but, again, this is contingent upon a steady expansion of the feeding industry and a competitive market.

Successful feeding industries and packing industries are highly dependent upon each other. The quantity and quality of hogs and cattle must be sufficient to provide a year-round supply of fattened animals to a packer large enough to take advantage of economies of size.

Many retail businesses have felt the economic squeeze during recent years. As a result, their numbers also declined. As their numbers decreased they also concentrated in the larger communities which could support their growth through volume sales. Business establishments in the dying communities respond by boarding up their windows (this process has not ended).

As changes in the structure of agriculture occur, farm input (supply) dealers must make adjustments. As farms become fewer in number and larger in size, these changes will be expressed in the form of fewer but larger potential customers; in terms of changing annual sales volume; in the need for more highly trained service personnel; and in the need to serve larger trade areas.

Federal policy has, since about 1960, emphasized economic development on Indian reservations with decreasing emphasis on relocation. To provide the on-reservation jobs, numerous new industries and enterprises have been established. All of Montana's reservations, except the Northern Cheyenne and Rocky Boy, have developed industrial parks. All have tourism programs. Three have developed or are developing tourism complexes. Most reservations are repurchasing land which was sold at an earlier date. The Crow Tribe has been negotiating to buy the 120,000-acre Little Horn Land and Livestock Company.

Most of the reservations have land purchase programs. The tribes budget each year an amount to be used for the purchase of land. The amount the tribes can budget is not sufficient for the requests to sell back to them. Public Law 91-229 gives authority to the FmHA to finance such tracts. Certain conditions and authorities exist and the obligations have to be met on a loan basis. The tribes through their tribal

councils must request a loan through the FmHA to purchase trust or fee land on the reservation under PL-91-229.

There are presently 11 industries operating at 13 reservation sites in Montana. These industries, as of December 1, 1971, employed 737 people, of whom 557 were Indian. Nationally, reservation industries have enjoyed much more success in the past five years than in previous years. Major problems are management, acquiring contracts, and funding for operations.

The overall situation with regard to agriculturally related industries in the state may be summarized to be one of uncertainty. While some new industries are being contemplated, others are moving out. Perhaps as much can be learned from those going out of business as through expensive feasibility studies concerning the potential for new industries.

A guide designed to achieve greater understanding of the factors involved in the development and expansion of rural industries has been published by the Federal Extension Service, Washington, DC. It is PA-894, Planning for Rural Industry, April 1969. The 1971 USDA Yearbook of Agriculture, entitled, A Good Life for More People, also contains information related to developing rural areas. One article, "How a Town Can Attract Industry," by Cavender and Schmitt, is especially pertinent.

MANUFACTURING IN MONTANA

Much of the manufacturing in Montana is involved with the state's primary resources--agricultural products, lumber, and metals. The manufacturing industry will continue to grow in Montana, but probably at a slower rate than in the more industrialized states. Table 25 is a statistical summary of the state's manufacturing activity and the employment generated by this activity. Table 26 is a partial listing of the manufacturing activity in the state to illustrate the kinds of products being produced.

TABLE 25--STATISTICAL SUMMARY

Name	Manufacturers Number	Manufacturers Percent	Employment Number	Employment Percent
Food & Kindred Products	139	18.0	2,989	17.2
Textile Mill Products	1	0.1	5	0.0
Apparel & Other Finished Products Made from Fabrics & Similar Materials	17	2.2	305	1.8
Lumber & Wood Prod., except furniture	194	25.1	5,337	30.7
Furniture & Fixtures	9	1.2	54	0.3
Paper & Allied Prod.	2	0.3	489	2.8
Printing, Publishing, & Allied Ind.	100	12.9	719	4.1
Chemicals & Allied Products	15	1.9	302	1.7
Petroleum Refining & Related Ind.	8	1.0	867	5.0
Rubber & Misc. Plastic Products	7	0.9	26	0.1
Leather & Leather Products	6	0.8	38	0.2
Stone, Clay, Glass, & Concrete Prod.	88	11.4	1,535	8.8
Primary Metal Industry	9	1.2	3,016	17.3
Fabricated Metal Products except Mach. & Trans. Equip.	52	6.7	543	3.1
Machinery, except Elec.	51	6.6	399	2.3
Elec. & Electronic Mach., Equip., & Supplies	2	0.3	14	0.1
Trans. Equip.	19	2.5	162	0.9
Measuring, Analyzing, & Controlling Instruments	9	1.2	211	1.2
Misc. Manufacturing Ind.	46	5.9	392	2.3
TOTALS	774		17,403	

Source: Department of Community Affairs, Directory of Montana Manufacturers, The Division of Research & Information Systems, Helena, Montana, 1976-77, p. xi.

TABLE 26

PARTIAL LISTING OF AGRICULTURALLY RELATED MANUFACTURING IN MONTANA

	No.	S	M	L	W
Food and Kindred Products					
Meat Packing Plants	25	13	5	2	5
Prepared Meat Products	5	2		1	2
Creamery Butter	12	10		1	1
Natural & Processed Cheese	3	3			
Condensed & Evaporated Milk	1		1		
Ice Cream & Frozen Desserts	15	11	3	1	
Fluid Milk	13	6	5	1	1
Canned Fruits, Vegetables, Preserves, Jellies, Jams	2	2			
Flour & Other Grain Mill Products	3		1	1	U
Prepared Feeds	29	13	10	2	4
Beet Sugar	2			2	
Animal & Marine Fats & Oils	7	4	1	1	1
Lumber and Wood Products Except Furniture					
Logging & Logging Contractor	96	49	13	3	31
Sawmills & Planing Mills	66	19	15	16	16
Hardwood Dimension & Flooring Mills	3		1		2
Machinery, Except Electrial					
Farm Machinery & Equipment	16	8	4	1	3

Source: Department of Community Affairs, Directory of Montana Manufacturers, Division of Research & Information Systems, Helena, Montana, 1976-77.

The Wood Products Industry

The state's wood products industry is concentrated in an eight-county area of western Montana. It is estimated that, as a whole, 12 percent of the employment and 11 percent of the income is directly or indirectly related to the wood industry.

The industry was on a decline during 1974-75 but began to improve in 1976. More housing starts and a greater demand for paper has helped the industry recover. Decisions made by the federal government will also be of particular concern to Montana, where approximately one-half of the timber supply is found on federal lands.

Christmas tree production has been increasing in the western part of the state. The greatest demand for the trees is outside the state.

It has been suggested that, in the future, there will be fewer lumber and plywood firms producing in the state. However, more emphasis will probably be on the manufacturing of particleboard and other products made from small roundwood chips, pulp, and paper. To survive, it is essential that the industry continue to utilize the entire resource, including logging residue. Economics is sometimes a limiting factor.

The Mining Industry

Montana's coal industry has the potential to expand. Increased production can be achieved through expansion of existing mines and possible addition of two or three surface mines.

The copper industry generates the major part of income from metals and nonmetals. Iron, manganese, talc, lead, and zinc will become more important in the future. Some additional copper deposits and a gold deposit may be developed when the price structure becomes more favorable.

In 1975 Montana's metallic and nonmetallic mineral production was valued at 202 million dollars. Fluctuating prices caused by demand and stockpiles of material have a direct effect on yearly revenues.

There is production potential for a number of metals and nonmetals in Montana. There are large reserves of manganese at Philipsburg and Butte. There is also a reserve of zinc ore in the Butte area as well as additional copper deposits. Gold deposits can be found in the Whitehall and Anaconda areas. Additional talc deposits have been located in Madison and Beaverhead Counties and vermiculite deposits can be found in the Pony area.

Oil and Gas Production

There were 32,850,749 barrels of crude oil produced in 1975. As of December 31, 1975, Montana had a proven reserve of 164 million barrels. Several factors will determine the amount of production and future reserves in the state: (1) wellhead price, (2) extent of additional secondary and tertiary recovery in known fields, (3) federal tax legislation, (4) legislation which will either encourage or discourage exploration, and (5) the extent of exploration on U. S. forest lands and other state lands.

Crude oil production in Montana in 1974-75 amounted to 18.8 million dollars. Montana's seven refineries provide jobs for about 1,300 employees with a payroll of over $20 million. A total of $4 million in various taxes is paid each year.

Production of natural gas reached 43,622,602 million cubic feet for 1975. Exploratory drilling will continue in an effort to offset dwindling supplies of Canadian gas. Access to federal and state land and the price of gas will undoubtedly affect the future gas supply in Montana. New outside sources of gas will be sought to supplement the state's 760,262-million-cubic-foot reserve.

Travel in Montana

Tourism and travel in Montana is on the increase. Actual income and employment data are difficult to gather and not very reliable. The Montana Travel Promotion Unit of the Department of Highways estimates the travel industry generates approximately 13,000 full- and part-time jobs and about 80 million dollars in income. As average incomes rise and as workers have more leisure time, Montana can expect an increased influx of tourists.

Summary

Economic development is a way to accomplish rural development. However, as can be seen in this section, many of the efforts in Montana are fragmented. A large gap appears to exist between what is known about management, growth, and development and what is being accomplished in the state. Important subjects such as management, financing, transportation, and agribusiness are neglected or at least their potential contributions are left largely unexploited. Traditional ways seem to linger in the face of new technology.

For successful economic development, leadership must be exerted to motivate people. Otherwise, many of the same problems discussed in this section will still exist in the future just as they have in the past.

There is a strong need for a coordinated, balanced system of economic development. Such efforts would be highly complementary to most existing programs in the state.

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APPENDIX A

PREFACE TO APPENDIX A

The tables included in Appendix A are state summary tables which include social and economic facts about Montana compiled from individual county profile computer-generated tables prepared by the Montana Department of Community Affairs, Division of Research and Information Systems.

In order to compare a single county profile against statewide data, it will be necessary to obtain a copy of the county profile from the Department of Community Affairs, Helena, Montana.

STATE PROFILES - MONTANA
SECTION 01: POPULATION

TABLE 1.1

COMPONENTS OF POPULATION CHANGE: 1960 TO 1970

POPULATION		CHANGE		COMPONENTS OF CHANGE (ESTIMATES)			
						*NET MIGRATION	
1960	1970	NUMBER	PERCENT	BIRTHS	DEATHS	NUMBER	PERCENT
674,767	694,409	19,642	2.9	143,812	66,017	-58,153	-8.6

*Net migration = Net change - Births + Deaths

TABLE 1.2

POPULATION BY URBAN AND RURAL RESIDENCE: 1960 AND 1970

RESIDENCE	1960		1970		PERCENT CHANGE 1960 TO 1970
	NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL	
POPULATION	674,767	100.0	694,409	100.0	2.9
URBAN	338,457	50.1	370,676	53.4	9.5
RURAL	336,310	49.8	323,733	46.6	- 3.7
PLACES 1000 to 2500	60,120	8.9	53,685	7.7	-10.7
OTHER RURAL	276,190	40.9	270,048	38.9	- 2.2

TABLE 1.3

POPULATION BY RACE: 1960 AND 1970

RACE	1960 NUMBER	1960 PERCENT OF TOTAL	1970 NUMBER	1970 PERCENT OF TOTAL	PERCENT CHANGE 1960 TO 1970
POPULATION	674,767	100.0	694,409	100.0	2.9
WHITE	650,738	96.4	663,043	95.5	1.9
NON-WHITE	24,029	3.6	31,366	4.5	30.5
INDIAN	21,181	3.1	27,130	3.9	28.1
OTHER	2,848	0.4	4,236	0.6	48.7

TABLE 1.4

POPULATION BY AGE AND SEX: 1960 AND 1970

AGE/SEX GROUP	1960 NUMBER	1960 PERCENT OF TOTAL	1970 NUMBER	1970 PERCENT OF TOTAL	PERCENT CHANGE 1960 TO 1970
TOTAL--ALL AGES	674,767	100.0	694,409	100.0	2.9
Under 5	83,102	12.3	57,054	8.20	- 31.0
5 - 17	177,306	26.3	196,071	28.24	10.6
18 - 59	325,481	48.2	344,113	49.56	5.72
60 - 64	23,458	3.5	28,435	4.09	21.22
65 and over	65,420	9.7	68,736	9.90	5.07
5 years old	16,233	2.4	12,989	1.87	- 19.98
18 years old	9,229	1.4	13,473	1.94	45.99
MEDIAN AGE	27.6	---	27.1	---	- 1.8
MALE--ALL AGES	343,743	100.0	347,005	100.0	9.5
Under 5	42,184	12.27	29,120	8.39	- 31.0
5 - 17	89,747	26.11	99,726	28.74	11.1
18 - 59	166,157	48.33	171,779	49.50	3.38
60 - 64	12,009	3.49	14,585	4.20	21.45
65 and over	33,646	9.79	31,795	9.16	- 5.50
5 years old	8,166	2.38	6,694	1.93	- 18.02
18 years old	4,554	1.32	6,733	1.94	47.85
MEDIAN AGE	28.0	---	26.6	---	- 5.0
FEMALE--ALL AGES	331,024	100.0	347,404	100.0	4.95
Under 5	40,918	12.36	27,934	8.04	- 31.73
5 - 17	87,559	2.65	96,345	27.73	10.03
18 - 59	159,324	48.13	172,334	49.60	8.17
60 - 64	11,449	3.46	13,850	3.98	20.97
65 and over	31,774	9.60	36,941	10.63	16.26
5 years old	8,067	2.44	6,295	1.81	- 21.97
18 years old	4,675	1.41	6,740	1.94	44.17
MEDIAN AGE	27.1	---	27.6	---	1.84

TABLE 1.5

HOUSEHOLDS AND FAMILIES BY TYPE: 1960 AND 1970

*HOUSEHOLDS AND **FAMILIES	1970	1970	PERCENT CHANGE 1960 TO 1970
NUMBER OF HOUSEHOLDS	202,240	217,304	7.4
PERSONS IN HOUSEHOLDS	657,358	674,189	2.6
PERSONS PER HOUSEHOLD	3.25	3.10	-4.6
NUMBER OF FAMILIES	162,399	170,093	4.7
HUSBAND-WIFE FAMILIES	146,697	152,374	3.9
FAMILIES WITH FEMALE HEAD	NA[1]	13,448	NA
FAMILIES WITH MALE HEAD	NA	4,271	NA
PERSONS PER FAMILY	NA	3.62	NA

[1]NA = Not Available

*HOUSEHOLD: All persons who occupy a group of rooms or single room which constitutes a housing unit when it is occupied as separate living quarters.

**FAMILY: Household head and one or more other persons living in same household who are related to the head.

TABLE 1.6

ESTIMATES OF THE POPULATION: 1971 TO 1976
(Shown to the nearest hundred)

ITEM	1971	1972	1973	1974	1975	1976 (Provisional)
Population Estimate (July 1)	710,000	716,000	730,000	737,000	746,000	753,000

TABLE 2.1

PLACE OF BIRTH, *NATIVE POPULATION: 1960 AND 1970
(Data based on sample)

ITEM	1960	1970
TOTAL NATIVE POPULATION	644,121	674,814
BORN IN MONTANA	384,721	403,128
BORN IN DIFFERENT STATE	248,844	243,986
PERCENT OF TOTAL	38.6	36.2
BORN ABROAD, AT SEA, ETC.	3,930	5,712
STATE OF BIRTH NOT REPORTED	6,626	21,988

*Persons born in the U. S., in the Commonwealth of Puerto Rico, in an Outlying Area of the U. S., or at Sea.

TABLE 2.2

MARITAL STATUS, PERSONS 14 YEARS OLD AND OVER, BY SEX: 1970

ITEM	MALE	FEMALE
TOTAL--14 YEARS OLD AND OVER	249,067	252,855
NEVER MARRIED	74,669	54,148
MARRIED, EXCEPT SEPARATED	156,912	157,621
SEPARATED	1,784	2,240
WIDOWED	7,217	29,598
DIVORCED	8,485	9,248

TABLE 2.3

VETERAN STATUS, CIVILIAN MALE PERSONS, 16 YEARS OLD AND OVER: 1970
(Data based on sample)

	STATE NUMBER
CIVILIAN MALES--16 YEARS OLD AND OVER	227,584
VETERANS	99,983
PERCENT OF TOTAL	43.9
VIETNAM CONFLICT	16,556
KOREAN CONFLICT	16,671
KOREAN CONFLICT AND WORLD WAR II	2,506
WORLD WAR II	42,958
WORLD WAR I	6,175
OTHER SERVICE	15,117
NONVETERAN	127,601

TABLE 2.4

LICENSED NONGOVERNMENTAL HOSPITALS AND LONG-TERM CARE FACILITIES: 1977

HOSPITALS		LONG-TERM CARE FACILITIES	
NUMBER	BEDS	NUMBER	BEDS
60	3,416	86	5,359

TABLE 2.5

LIVE BIRTHS, DEATHS, MARRIAGES, AND DIVORCES: 1972 TO 1976
(BIRTHS AND DEATHS BY RESIDENCE: MARRIAGES AND DIVORCES BY OCCURRENCE)

YEAR	BIRTHS	DEATHS		MARRIAGES SOLEMNIZED	*DIVORCES & ANNULMENTS	RATE PER 1,000 POPULATION	
		TOTAL	INFANT			BIRTHS	DEATHS
1972	11,444	6,896	225	7,674	3,609	1.59	9.6
1973	11,392	6,870	222	7,751	3,772	1.58	9.5
1974	12,273	6,552	202	7,741	3,940	1.67	8.9
1975	12,070	6,539	187	7,331	4,286	1.61	8.7
1976	12,605	6,733	209	7,390	4,850	1.67	8.9

*In the Uniform Marriage and Divorce Act approved May 1975, the terms "Divorce" and "Annulment" are replaced by "Dissolution of Marriage" and "Declaration of Invalidity."

TABLE 2.6

RATES PER 100,000 POPULATION FOR THE *FOUR LEADING CAUSES OF DEATH: 1972 TO 1976

ITEM		STATE NUMBER	STATE RATE
HEART DISEASE			
YEAR:	1972	2,294	319.1
	1973	2,300	319.0
	1974	2,202	299.6
	1975	2,178	291.2
	1976	2,178	289.2
CANCER			
YEAR:	1972	1,122	156.1
	1973	1,061	147.2
	1974	1,130	153.7
	1975	1,105	147.7
	1976	1,191	158.2
CEREBROVASCULAR DISEASE (STROKE)			
YEAR:	1972	743	103.3
	1973	711	98.6
	1974	670	91.2
	1975	660	88.2
	1976	637	84.6
ACCIDENTS			
YEAR:	1972	635	88.3
	1973	611	84.7
	1974	559	76.1
	1975	584	78.1
	1976	579	76.9

*Four leading causes shown represent the experience of the entire state; an individual county may have other causes of death which should appear among the top four.

TABLE 3.1

SCHOOL ENROLLMENT BY TYPE OF SCHOOL: 1960 AND 1970
(Data based on sample)

TYPE OF SCHOOL	1960	1970
TOTAL ENROLLED--3 to 34 YEARS OLD		214,868
NURSERY SCHOOL		1,596
PUBLIC		795
KINDERGARTEN	4,883	8,093
PUBLIC	3,628	5,322
ELEMENTARY (1 to 8 years)	116,160	123,209
PUBLIC	102,111	116,006
HIGH SCHOOL (1 to 4 years)	42,260	55,922
PUBLIC	37,923	52,142
COLLEGE	11,618	26,048

TABLE 3.2

SCHOOL ENROLLMENT BY AGE: 1960 AND 1970
(Data based on sample)

AGE GROUP	1960 ENROLLED IN SCHOOL		1970 ENROLLED IN SCHOOL	
	NUMBER	PERCENT	NUMBER	PERCENT
TOTAL ENROLLED--3 to 34 years old			214,868	57.1
3 and 4 years old			1,317	5.6
5 and 6 years old	14,632	45.9	16,241	59.4
7 to 13 years old	98,977	97.6	105,469	97.5
14 and 15 years old	21,823	96.0	30,016	96.8
16 and 17 years old	19,837	88.4	27,882	92.4
18 and 19 years old	8,759	51.2	16,145	63.7
20 and 21 years old	3,695	22.6	7,887	36.7
22 to 24 years old	2,815	11.9	5,234	17.9
25 to 34 years old	4,383	5.4	4,677	5.8
35 years old and over			2,003	NA

TABLE 3.3

MEDIAN SCHOOL YEARS COMPLETED, PERSONS 25 YEARS OLD AND OVER: 1960 AND 1970

ITEM	1960	1970
MEDIAN SCHOOL YEARS COMPLETED	11.6	12.3

TABLE 3.4

EDUCATIONAL ATTAINMENT, PERSONS 25 YEARS OLD AND OVER, BY SEX: 1970
(Data based on sample)

YEARS OF SCHOOL COMPLETED	MALE	FEMALE
PERSONS, 25 YEARS OLD & OVER	180,092	184,416
NO SCHOOL YEARS COMPLETED	1,554	1,249
ELEMENTARY (8 years)	33,617	25,340
HIGH SCHOOL (4 years)	55,992	68,121
COLLEGE (4 years or more)	22,905	17,231
MEDIAN SCHOOL YEARS COMPLETED	12.2	12.3
PERCENT HIGH SCHOOL GRADUATES	NA	NA

TABLE 3.5

VOCATIONAL TRAINING OF PERSONS 16-64 YEARS OLD, WITH LESS THAN 15 YEARS OF SCHOOL, BY SEX: 1970
(Data based on sample)

ITEM	MALE	FEMALE
PERSONS, 16-64 YEARS OLD, WITH LESS THAN 15 YEARS OF SCHOOL	170,754	176,550
PERCENT WITH VOCATIONAL TRAINING	27.1	18.0

TABLE 3.6

HIGH SCHOOL GRADUATES NOT ENROLLED IN COLLEGE, AND SCHOOL DROPOUTS, 16-21 YEARS OLD--EMPLOYMENT STATUS BY SEX: 1970
(Data based on sample)

EMPLOYMENT STATUS, BY SEX	GRADUATES	DROPOUTS
PERSONS 16-21 YEARS OLD NOT ATTENDING SCHOOL	17,552	7,971
EMPLOYED OR IN ARMED FORCES	11,013	3,075
MALE	5,697	2,012
FEMALE	5,316	1,063
UNEMPLOYED OR NOT IN LABOR FORCE	6,509	4,896
MALE	1,530	1,378
FEMALE	4,979	3,518

TABLE 3.7

PUBLIC SCHOOL ENROLLMENT BY GRADE: 1974-75 THROUGH 1977-78

GRADE	SCHOOL YEAR 1974-75	1975-76	1976-77	1977-78
TOTAL ENROLLED	172,103	171,686	170,462	168,613
KINDERGARTEN	6,894	9,864	10,904	10,114
FIRST GRADE	12,112	12,469	12,939	13,499
SECOND GRADE	11,778	11,611	11,951	12,510
THIRD GRADE	11,933	11,639	11,489	11,991
FOURTH GRADE	12,756	11,873	11,683	11,643
FIFTH GRADE	13,511	12,644	11,926	11,740
SIXTH GRADE	14,323	13,518	12,764	12,154
SEVENTH GRADE	15,088	14,396	13,640	12,873
EIGHTH GRADE	14,947	14,976	14,296	13,657
NINTH GRADE	15,176	14,896	15,041	14,384
TENTH GRADE	14,813	14,814	14,710	14,813
ELEVENTH GRADE	13,649	13,981	14,068	13,931
TWELFTH GRADE	12,730	12,804	13,077	13,010
UNGRADED & SPECIAL EDUCATION	2,393	2,201	1,974	2,294

TABLE 3.8

PUBLIC SCHOOL PUPIL-TEACHER RATIO: 1971-72 THROUGH 1976-77

ITEM	SCHOOL YEAR 1971-72	1972-73	1973-74	1974-75	1975-76	1976-77
PUPILS ENROLLED	173,417	172,350	172,046	172,103*	171,686*	170,462
ELEMENTARY (KINDERGARTEN - 8)	119,204	117,182	115,420	113,342	112,990	111,592
SECONDARY (9 - 12)	54,213	55,168	56,626	56,368	56,495	56,896
CLASSROOM TEACHERS	8,532	8,500	8,639	8,994	9,322	9,423
PUPIL/TEACHER RATIO	20.3	20.2	19.9	19.1	18.4	18.1

*Includes ungraded/special education pupils.

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SECTION 04: HOUSING

TABLE 4.1

HOUSING UNITS BY TENURE AND VACANCY STATUS: 1960 AND 1970

ITEM	1960	1970	PERCENT CHANGE 1960 TO 1970
ALL HOUSING UNITS	233,310	246,603	5.7
OCCUPIED	202,240	217,304	7.4
OWNER-OCCUPIED	129,399	142,774	10.3
RENTER-OCCUPIED	72,841	74,530	2.3
VACANT	31,070	29,299	- 5.7
YEAR-ROUND	18,304	23,000	25.7
FOR SALE ONLY	1,845	1,846	0.05
FOR RENT	7,497	8,102	8.1
OTHER	8,962	13,052	45.6
SEASONAL	12,766	6,299	-50.6
*Homeowner vacancy rate (percent)	1.4	1.3	
**Rental vacancy rate (percent)	10.2	9.8	

*Vacant units for sale divided by all owner-occupied units and year-round vacant units for sale.

**Vacant units for rent divided by all renter-occupied units and all year-round vacant units for rent.

TABLE 4.2

HOUSEHOLDS BY LOW INCOME STATUS: 1969
(Data based on sample)

ITEM	TOTAL	OWNER OCCUPIED	RENTER OCCUPIED
***HOUSING UNITS FOR WHICH VALUE AND RENT ARE TABULATED	166,389	98,823	67,566
HOUSEHOLDS WITH INCOME LESS THAN POVERTY LEVEL	27,292	11,730	15,562
PERCENT OF ALL UNITS	16.4	11.9	23.0

***For each occupied housing unit, there is one household.

TABLE 4.3

STRUCTURAL AND PLUMBING CHARACTERISTICS OF HOUSING UNITS, TOTAL AND RURAL AREA: 1970
(Data based on sample)

ITEM	TOTAL	*RURAL AREA
YEAR-ROUND HOUSING UNITS	240,755	112,341
STRUCTURES WITH 1 UNIT	178,394	92,038
STRUCTURES WITH 2 UNITS	14,870	2,786
STRUCTURES WITH 3 AND 4 UNITS	11,033	2,708
STRUCTURES WITH 5 OR MORE UNITS	19,523	3,186
MOBILE HOMES OR TRAILERS	16,935	11,623
STRUCTURES BY YEAR BUILT		
1969 to March 1970	6,227	3,763
1965 to 1968	18,840	10,626
1960 to 1964	24,732	11,864
1950 to 1959	44,772	17,413
1940 to 1949	26,614	11,951
1939 or earlier	119,570	56,724
STRUCTURES LACKING:		
**SOME OR ALL PLUMBING FACILITIES	19,516	13,781
***COMPLETE KITCHEN FACILITIES	14,342	10,935

*Rural area is the area outside of urbanized areas, including places with a population less than 2,500.

**Hot and cold piped water, flush toilet, and bathtub or shower

***Installed sink with piped water, range or cookstove, and mechanical refrigerator

TABLE 4.4

UTILIZATION CHARACTERISTICS OF HOUSING UNITS, TOTAL AND RURAL AREA: 1970
(Data based on sample)

ITEM	TOTAL	RURAL AREA
YEAR-ROUND HOUSING UNITS	240,755	112,341
MEDIAN NUMBER OF ROOMS*		
IN ALL UNITS	4.7	4.7
IN OWNER-OCCUPIED UNITS	5.1	5.0
IN RENTER-OCCUPIED UNITS	4.0	4.3
OCCUPIED HOUSING UNITS	217,304	96,767
MEDIAN NUMBER OF PERSONS		
IN ALL OCCUPIED UNITS	2.6	2.8
IN OWNER-OCCUPIED UNITS	2.8	2.8
IN RENTER-OCCUPIED UNITS	2.3	2.8
OCCUPIED HOUSING UNITS WITH 1.01 OR MORE PERSONS PER ROOM	19,897	11,367

*Whole rooms used for living purposes; bathrooms, foyers, utility rooms, unfinished attics, or basements not included.

TABLE 4.5

OWNER-OCCUPIED HOUSING UNITS BY VALUE, TOTAL AND RURAL AREA: 1970
(Data based on sample)

ITEM	TOTAL	RURAL AREA
**SPECIFIED OWNER-OCCUPIED UNITS	97,735	35,729
***VALUE		
LESS THAN $5,000	8,025	5,521
$5,000 to $9,999	21,048	10,264
$10,000 to $14,999	23,555	8,059
$15,000 to $19,999	22,321	5,498
$20,000 to $24,999	11,522	3,114
$25,000 to $34,999	7,686	2,067

TABLE 4.5 (continued)

ITEM	TOTAL	RURAL AREA
$35,000 or more	3,578	1,206
MEDIAN VALUE	14,200	11,100

**One-family houses on less than 10 acres; excludes mobile homes and trailers and units in cooperatives and condominiums.
***Estimate of how much the property would sell for if it were for sale.

TABLE 4.6

RENTER-OCCUPIED HOUSING UNITS BY GROSS MONTHLY RENT, TOTAL AND RURAL AREA: 1970
(Data based on sample)

ITEM	TOTAL	RURAL AREA
*SPECIFIED RENTER-OCCUPIED UNITS	68,071	19,933
**GROSS RENT		
LESS THAN $30	1,159	474
$30 to $39	2,431	603
$40 to $59	8,316	2,471
$60 to $79	12,738	3,874
$80 to $99	13,663	3,874
$100 to $149	17,330	4,352
$150 to $199	4,657	625
$200 OR MORE	1,011	228
NO CASH RENT	6,766	3,559
MEDIAN GROSS RENT	89	84

*Excludes one-family homes on 10 acres or more.
**Contract rent plus estimated average monthly cost of utilities and fuels, if these items are paid for by renter.

TABLE 5.1

EMPLOYMENT STATUS, PERSONS 14 YEARS OLD AND OVER, BY SEX: 1960 AND 1970
(Data based on sample)

ITEM	1960	*1970	PERCENT CHANGE 1960 to 1970
BOTH SEXES TOTAL--14 YEARS & OVER	458,398	501,780	9.5
LABOR FORCE	254,401	270,834	6.5
PERCENT OF TOTAL	55.5	53.9	- 2.9
CIVILIAN LABOR FORCE	248,073	265,083	6.9
EMPLOYED	231,270	248,343	7.4
UNEMPLOYED	16,803	16,741	- 0.4
PERCENT OF CIVILIAN LABOR FORCE	6.8	6.3	- 7.3
NOT IN LABOR FORCE	203,997	230,946	13.2
MALE TOTAL--14 YEARS OLD & OVER	233,500	248,999	6.6
LABOR FORCE	181,021	177,549	- 1.9
PERCENT OF TOTAL	77.5	71.3	- 8.0
CIVILIAN LABOR FORCE	174,718	171,889	- 1.6
EMPLOYED	163,207	161,654	- 0.95
UNEMPLOYED	11,511	10,235	- 11.1
PERCENT OF CIVILIAN LABOR FORCE	6.6	5.9	- 10.6
NOT IN LABOR FORCE	52,479	71,450	36.1
FEMALE TOTAL--14 YEARS OLD & OVER	224,898	252,781	12.4
LABOR FORCE	73,380	93,285	27.1
PERCENT OF TOTAL	32.6	36.9	13.2
CIVILIAN LABOR FORCE	73,355	93,194	27.0
EMPLOYED	68,063	86,688	27.4
UNEMPLOYED	5,292	6,506	22.9
PERCENT OF CIVILIAN LABOR FORCE	7.2	7.5	4.2
NOT IN LABOR FORCE	151,518	159,496	5.3

*Labor force universe revised January 1967 to persons 16 years old and over. To achieve comparability, data for 1970 presented for persons 14 years old and over.

TABLE 5.2

OCCUPATION OF EMPLOYED PERSONS, BY SEX: 1960 AND 1970
(Data based on sample)

OCCUPATION GROUP	1960	1970	PERCENT CHANGE 1960 to 1970
MALE EMPLOYED, 14 YEARS OLD & OVER	163,207	161,654	- 0.95
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	14,706	19,433	32.1
MANAGERS AND ADMINISTRATORS (NON-FARM)	19,400	19,701	1.6
SALES WORKERS	9,085	9,332	2.7
CLERICAL & KINDRED WORKERS	8,171	8,037	- 1.6
CRAFTSMEN, FOREMEN, & KINDRED WORKERS	27,925	28,986	3.8
OPERATIVES AND KINDRED WORKERS	24,038	22,590	- 6.0
LABORERS (NON-FARM)	11,038	10,271	- 6.9
FARMERS AND FARM MANAGERS	24,421	17,294	- 29.2
FARM LABORERS AND FOREMEN	11,401	8,455	- 25.8
SERVICE WORKERS, EXCEPT PRIVATE HOUSEHOLD	8,969	11,133	24.1
PRIVATE HOUSEHOLD WORKERS	210	92	- 56.2
OCCUPATION NOT REPORTED	3,843	6,330	64.7
FEMALE EMPLOYED, 14 YEARS OLD & OVER	68,063	86,688	27.4
PROFESSIONAL, TECHNICAL, & KINDRED WORKERS	11,221	14,683	30.9
MANAGERS AND ADMINISTRATORS (NON-FARM)	3,782	2,840	- 24.9
SALES WORKERS	6,066	6,383	5.2
CLERICAL AND KINDRED WORKERS	18,895	26,213	38.7
CRAFTSMEN, FOREMEN, & KINDRED WORKERS	489	840	71.8
OPERATIVES AND KINDRED WORKERS	2,840	3,126	10.1
LABORERS (NON-FARM)	208	891	328.4
FARMERS AND FARM MANAGERS	838	4,626	452.0
FARM LABORERS AND FOREMEN	1,013	1,178	16.3
SERVICE WORKERS, EXCEPT PRIVATE HOUSEHOLD	14,622	20,681	41.4
PRIVATE HOUSEHOLD WORKERS	5,082	3,249	- 36.1
OCCUPATION NOT REPORTED	3,007	4,040	34.4

TABLE 5.3

INDUSTRY OF EMPLOYED PERSONS, BY SEX: 1960 AND 1970
(Data based on sample)

OCCUPATION GROUP	1960	1970	PERCENT CHANGE 1960 to 1970
MALE EMPLOYED, 14 YEARS OLD AND OVER	163,207	161,654	- 0.95
AGRICULTURE, FORESTRY, & FISHERIES	38,111	28,894	- 24.18
MINING AND CONSTRUCTION	20,999	19,757	- 5.9
MANUFACTURING	21,180	20,792	- 1.8
TRANSPORTATION, COMMUNICATION, & OTHER UTILITIES	17,809	15,681	- 11.9
WHOLESALE AND RETAIL TRADE	29,014	30,606	5.5
FINANCE, INSURANCE, AND REAL ESTATE	4,369	4,759	8.9
BUSINESS AND REPAIR SERVICES	4,102	4,074	- 0.7
PERSONAL SERVICES	3,783	3,100	- 18.1
ENTERTAINMENT AND RECREATION SERVICES	1,051	1,008	- 4.1
PROFESSIONAL AND RELATED SERVICES	11,438	17,481	52.8
PUBLIC ADMINISTRATION	8,588	9,472	10.3
INDUSTRY NOT REPORTED	2,763	6,030	118.2
FEMALE EMPLOYED, 14 YEARS OLD AND OVER	68,063	86,688	27.4
AGRICULTURE, FORESTRY, & FISHERIES	2,733	2,900	6.1
MINING AND CONSTRUCTION	694	915	31.8
MANUFACTURING	2,259	2,619	15.9
TRANSPORTATION, COMMUNICATION, & OTHER UTILITIES	3,204	3,191	- 0.4
WHOLESALE AND RETAIL TRADE	18,080	22,465	24.3
FINANCE, INSURANCE, AND REAL ESTATE	3,666	4,445	21.2
BUSINESS AND REPAIR SERVICES	635	1,353	113.1
PERSONAL SERVICES	9,974	9,094	- 8.8
ENTERTAINMENT AND RECREATION SERVICES	800	907	13.4
PROFESSIONAL AND RELATED SERVICES	19,668	29,983	52.4
PUBLIC ADMINISTRATION	4,002	4,809	20.2
INDUSTRY NOT REPORTED	2,348	4,007	70.7

TABLE 5.4

ESTIMATES OF THE LABOR FORCE AND AVERAGE UNEMPLOYMENT RATES: 1972 TO 1977

YEAR	*LABOR FORCE	UNEMPLOYED	**UNEMPLOYMENT RATE
1972	297,200	18,500	6.2
1973	309,800	19,600	6.3
1974	322,600	21,600	6.7
1975	330,500	26,900	8.1
1976	339,800	26,100	7.7
1977			

*Persons 16 years and older, defined as employed or unemployed, excluding members of the armed forces, including self-employed, unpaid family workers, and domestic workers.

**Unemployed expressed as percentage of the labor force.

TABLE 5.5

EMPLOYMENT BY TYPE AND BROAD INDUSTRIAL SOURCES: 1971 TO 1975
(FULL AND PART-TIME WAGE AND SALARY EMPLOYMENT PLUS NUMBER OF PROPRIETORS)

ITEM	1971	1972	1973	1974	1975
TOTAL EMPLOYMENT	289,894	300,023	311,231	319,869	317,506
NUMBER OF PROPRIETORS	58,914	59,721	59,235	58,828	57,780
FARM PROPRIETORS	27,649	27,151	26,750	26,249	25,145
NON-FARM PROPRIETORS	31,265	32,570	32,485	32,579	32,635
WAGE AND SALARY EMPLOYMENT	230,980	240,302	251,996	261,041	259,726
FARM	11,853	11,899	11,882	12,962	10,959
NON-FARM	219,127	226,403	240,114	248,079	248,767
GOVERNMENT	61,561	61,909	65,263	67,028	69,356
FEDERAL	17,870	18,283	18,529	18,987	18,934
FEDERAL CIVILIAN	11,852	12,343	12,388	12,877	13,237
MILITARY	6,018	5,940	6,141	6,110	5,697
STATE AND LOCAL	43,691	43,626	46,734	48,041	50,422
PRIVATE NON-FARM	157,566	166,494	174,851	181,051	179,411
MANUFACTURING	23,675	24,187	24,491	24,374	22,996
MINING	5,292	6,149	6,617	7,390	6,564
CONSTRUCTION	11,735	13,014	13,723	13,646	12,904
TRANSPORTATION, COMMUNICATIONS, AND PUBLIC UTILITIES	17,228	18,037	18,390	19,214	19,191
TRADE	50,186	52,440	55,686	58,206	59,246
FINANCE, INSURANCE, & REAL ESTATE	8,203	8,713	9,416	9,913	9,948
SERVICES	40,363	42,973	45,152	46,967	47,304
OTHER	884	981	1,376	1,341	1,258

TABLE 5.6

EMPLOYMENT BY TYPE AND BROAD INDUSTRIAL SOURCES: PERCENTAGE COMPARISONS
(Percentages derived from data in table 5.5)

ITEM	PERCENT CHANGE 1971 to 1975	PERCENT CHANGE 1974 to 1975	PERCENT OF TOTAL W & S EMPLOYMENT 1975
TOTAL EMPLOYMENT	9.5	- 0.7	
NUMBER OF PROPRIETORS	- 1.9	- 1.8	
FARM PROPRIETORS	- 9.0	- 4.2	
NON-FARM PROPRIETORS	4.4	0.2	
WAGE AND SALARY EMPLOYMENT	12.4	- 5.0	100.0
FARM	- 7.5	-15.5	4.2
NON-FARM	13.5	0.3	95.8
GOVERNMENT	12.7	3.5	26.7
FEDERAL	6.0	0.3	7.3
FEDERAL CIVILIAN	11.7	2.8	5.1
MILITARY	- 5.3	- 6.7	2.2
STATE AND LOCAL	15.4	5.0	19.4
PRIVATE NON-FARM	13.9	- 0.9	69.1
MANUFACTURING	2.9	- 5.7	8.9
MINING	24.0	-11.2	2.5
CONSTRUCTION	10.0	- 5.4	5.0
TRANSPORTATION, COMMUNICATIONS, & PUBLIC UTILITIES	11.4	- 0.1	7.4
TRADE	18.1	1.8	22.8
FINANCE, INSURANCE, REAL ESTATE	21.3	0.4	3.8
SERVICES	17.2	0.7	18.2
OTHER	42.3	- 6.2	0.5

SECTION 06: INCOME

TABLE 6.1

FAMILY INCOME DISTRIBUTION IN 1959 AND 1969
(Data based on sample)

MONEY INCOME	1959 NUMBER OF FAMILIES	1969 NUMBER OF FAMILIES	PERCENT CHANGE 1959 to 1969
ALL FAMILIES	165,777	171,812	2.4
LESS THAN $1,000	7,392	3,903	- 47.1
$1,000 to $1,999	11,498	5,514	- 52.0
$2,000 to $2,999	14,567	8,647	- 40.6
$3,000 to $3,999	18,716	9,476	- 49.4
$4,000 to $4,999	21,294	10,330	- 51.5
$5,000 to $5,999	23,378	12,104	- 48.2
$6,000 to $6,999	18,791	13,901	- 26.0
$7,000 to $7,999	13,810	14,518	5.1
$8,000 to $8,999	10,365	14,670	41.5
$9,000 to $9,999	6,916	12,674	83.3
$10,000 to $14,999	13,790	42,564	208.7
$15,000 to $24,999	4,008	18,440	360.0
$25,000 or more	1,252	5,071	305.0

TABLE 6.2

MEDIAN FAMILY INCOME: RANKING AMONG MONTANA COUNTIES: 1959 AND 1969
(Data based on sample)

1959 MEDIAN FAMILY INCOME	RANK	1969 MEDIAN FAMILY INCOME	RANK	PERCENT CHANGE 1959 TO 1969
5,403	NA	8,512	NA	57.5

TABLE 6.3

MONEY INCOME BY HOUSEHOLD TYPE: 1969
(Data based on sample)

MONEY INCOME	HUSBAND-WIFE FAMILY	OTHER FAMILY	*PRIMARY INDIVIDUAL
LESS THAN $5,000	28,419	9,430	34,574
$5,000 to $9,999	61,024	6,297	9,882
$10,000 to $14,999	39,776	2,173	1,866
$15,000 OR MORE	21,907	1,160	796

*Household head living alone or with non-relative

TABLE 6.4

LOW-INCOME STATUS OF FAMILIES, UNRELATED INDIVIDUALS, AND PERSONS: 1969
(Data based on sample)

**LOW-INCOME STATUS	FAMILIES	PERCENT OF ALL FAMILIES	UNRELATED INDIVIDUALS	PERCENT OF ALL UNRELATED INDIVIDUALS	PERSONS	PERCENT OF ALL PERSONS
INCOME						
LESS THAN POVERTY	17,821	10.4	23,675	40.0	91,669	13.6
LESS THAN 75% OF POVERTY LEVEL	11,045	6.4	17,428	29.7	59,300	8.8
LESS THAN 125% OF POVERTY LEVEL	26,700	15.5	29,101	49.6	132,826	19.6

**Excludes inmates of institutions, members of the armed forces living in barracks, college students in dormitories, and unrelated individuals under 14 years.

TABLE 6.5
*PERSONAL INCOME BY MAJOR SOURCES: 1970 TO 1975
(thousands of dollars)

ITEM	1970	1971	1972	1973	1974	1975
TOTAL LABOR & PROPRIETORS INCOME BY PLACE OF WORK	1,888,555	1,945,581	2,286,564	2,769,559	2,887,019	3,082,185
BY TYPE						
WAGE AND SALARY DISBURSEMENTS	1,356,044	1,462,997	1,627,921	1,814,923	2,033,087	2,208,308
OTHER LABOR INCOME	73,564	80,890	95,223	103,562	117,181	133,862
PROPRIETORS' INCOME	459,247	401,694	563,420	851,074	736,751	740,015
FARM	282,860	225,030	399,341	631,361	463,379	446,316
NON-FARM	176,387	176,664	164,079	219,713	273,372	293,699
BY INDUSTRY						
FARM	323,313	269,569	448,009	685,288	529,741	506,636
NON-FARM	1,565,542	1,676,012	1,838,555	2,084,271	2,357,278	2,575,549
PRIVATE	1,177,230	1,242,675	1,362,942	1,554,648	1,771,300	1,923,218
MANUFACTURING	198,664	210,525	228,670	248,772	272,482	285,762
MINING	63,538	48,753	66,376	76,330	108,265	114,378
CONTRACT CONSTRUCTION	123,521	134,607	154,622	173,839	190,160	198,261
WHOLESALE & RETAIL TRADE	305,563	330,564	352,229	408,058	466,907	517,209
FINANCE, INSURANCE, REAL ESTATE	68,612	76,369	81,233	89,173	97,568	110,892
TRANSPORTATION, COMMUNICATIONS, & PUBLIC UTILITIES	166,468	180,189	202,558	226,405	251,713	272,107
SERVICES	244,002	253,620	268,905	320,398	371,067	411,767
OTHER INDUSTRIES	6,862	8,048	8,349	11,673	13,138	12,842
GOVERNMENT	388,312	433,337	475,613	529,623	585,978	652,331
FEDERAL, CIVILIAN	107,948	121,628	133,185	147,897	160,854	178,719
FEDERAL, MILITARY	57,457	60,249	67,387	73,867	77,928	77,871
STATE AND LOCAL	222,907	251,460	275,041	307,859	347,196	395,741
**PERSONAL INCOME BY PLACE OF RESIDENCE	2,442,730	2,538,915	2,913,965	3,490,482	3,742,776	4,061,759
PER CAPITA INCOME (DOLLARS)	3,500	3,576	4,070	4,784	5,079	5,433

*Current income from all sources; measured after deduction of personal contributions to social security, government retirement, and other social insurance programs, but before deduction of income and other personal taxes. **Derivation of personal income is explained fully in local area personal income, 1970-75, Vol. 8, Rocky Mountain Region, Report No. BEA-REM 77-10, available from NTIS, U. S. Department of Commerce (Accession No. PB-270-887)

TABLE 6.6

PERSONAL INCOME BY MAJOR SOURCES: PERCENTAGE COMPARISONS
(Percentages derived from data in table 6.5)

ITEM	PERCENT CHANGE 1970 TO 1975	PERCENT CHANGE 1974 TO 1975	PERCENT OF TOTAL EARNINGS 1975
TOTAL LABOR & PROPRIETORS INCOME BY PLACE OF WORK	63.2	6.8	100.0
BY TYPE			
WAGE AND SALARY DISBURSEMENTS	62.8	8.6	
OTHER LABOR INCOME	82.0	14.2	
PROPRIETORS INCOME	61.1	0.4	
FARM	57.8	- 3.7	
NON-FARM	66.5	7.4	
BY INDUSTRY			
FARM	56.7	- 4.4	16.4
NON-FARM	64.5	9.3	83.6
PRIVATE	63.3	8.6	62.4
MANUFACTURING	43.8	4.9	9.3
MINING	80.0	5.6	0.4
CONTRACT CONSTRUCTION	60.5	4.3	0.6
WHOLESALE & RETAIL TRADE	69.3	10.8	16.8
FINANCE, INSURANCE, REAL ESTATE	61.6	13.7	3.6
TRANSPORTATION, COMMUNICATIONS, & PUBLIC UTILITIES	63.5	8.1	8.8
SERVICES	68.8	11.0	13.3
OTHER INDUSTRIES	87.1	- 2.3	0.4
GOVERNMENT	68.0	11.3	21.2
FEDERAL, CIVILIAN	65.6	11.1	5.8
FEDERAL, MILITARY	35.5	0.1	2.5
STATE AND LOCAL	77.5	14.0	12.8
PERSONAL INCOME BY PLACE OF RESIDENCE	66.3	8.5	

SECTION 07: GOVERNMENTAL FINANCES

TABLE 7.1
SELECTED ITEMS OF LOCAL GOVERNMENTAL FINANCES FOR COUNTY AREA: 1971-72

ITEM	AMOUNTS (THOUSANDS OF DOLLARS)	*PER CAPITA (DOLLARS)
GENERAL REVENUE, EXCLUDING INTERLOCAL	320,842	462.08
INTERGOVERNMENTAL REVENUE	83,583	120.38
FROM STATE GOVERNMENT	69,756	100.46
FROM LOCAL SOURCES	237,258	341.70
TAXES	191,127	275.26
PROPERTY TAXES	181,828	261.87
CHARGES & MISCELLANEOUS	46,132	66.44
DIRECT GENERAL EXPENDITURE	290,925	416.99
CAPITAL OUTLAY	38,507	55.46
OTHER	252,418	363.53
EDUCATION	165,220	237.95
HIGHWAYS	22,656	32.63
PUBLIC WELFARE	5,584	8.04
HOSPITALS	7,541	10.86
HEALTH	1,752	2.52
POLICE PROTECTION	9,477	13.65
FIRE PROTECTION	4,744	6.83
SEWERAGE	3,091	4.45
SANITATION OTHER THAN SEWERAGE	3,349	4.82
PARKS AND RECREATION	2,486	3.58
NATURAL RESOURCES	5,802	8.36
HOUSING AND URBAN RENEWAL	5,371	7.74
CORRECTION	1,002	1.44
LIBRARIES	2,172	3.13
FINANCIAL ADMINISTRATION	5,115	7.37
GENERAL CONTROL	7,558	10.88
GENERAL PUBLIC BUILDINGS	2,852	4.11
INTEREST ON GENERAL DEBT	6,048	8.71
OTHER AND UNALLOCABLE	29,103	41.91
WATER SUPPLY REVENUE	6,561	9.48
WATER SUPPLY EXPENDITURE	7,130	10.27
GENERAL DEBT OUTSTANDING	164,201	236.48
LONG-TERM	161,771	232.98
LOCAL SCHOOLS	72,294	104.12

*Based on 1970 population.

TABLE 7.2

FEDERAL FUNDS DISTRIBUTED BY SELECTED FEDERAL AGENCY OPERATIONS: *FISCAL YEAR 1977

(Reported from the Executive Branch only)

ITEM	STATE AMOUNT ($1,000)	COUNTY AMOUNT ($1,000)
TOTAL FEDERAL OUTLAYS	1,690,910	1,690,910
GRANT OUTLAYS	414,391	414,391
OTHER FEDERAL OUTLAYS	1,276,519	1,276,519
DEPARTMENT OF AGRICULTURE	307,492	307,492
DEPARTMENT OF COMMERCE	60,439	60,439
DEPARTMENT OF DEFENSE	321,050	321,050
DEPARTMENT OF HEALTH, EDUCATION & WELFARE	456,872	456,872
**DEPARTMENT OF HOUSING & URBAN DEVELOPMENT	15,115	15,115
DEPARTMENT OF THE INTERIOR	107,092	107,092
DEPARTMENT OF JUSTICE	4,104	4,104
DEPARTMENT OF LABOR	62,066	62,066
DEPARTMENT OF TRANSPORTATION	95,714	95,714
TREASURY DEPARTMENT	35,098	35,098
ACTION	811	811
CIVIL SERVICE COMMISSION	35,208	35,208
COMMUNITY SERVICES ADMINISTRATION	6,172	6,172
ENERGY RESEARCH & DEVELOPMENT ADMINISTRATION	7,423	7,423
ENVIRONMENTAL PROTECTION AGENCY	12,221	12,221
GENERAL SERVICES ADMINISTRATION	7,042	7,042
NATIONAL FOUNDATION ON ARTS AND HUMANITIES	767	767
NATIONAL SCIENCE FOUNDATION	986	986
POSTAL SERVICE	49,262	49,262
RAILROAD RETIREMENT BOARD	32,445	32,445
SMALL BUSINESS ADMINISTRATION	2,529	2,529
VETERANS ADMINISTRATION	69,231	69,231
***OTHER	772	772

*October 1, 1976 to September 30, 1977

**Data for a number of HUD programs were not reported by the Department.

***Department of State, Equal Employment Opportunity Comm., Federal Energy Administration, National Aeronautics and Space Administration, U. S. Information Agency, Water Resources Council, Federal Mediation and Conciliation Service, Interstate Commerce Commission, and Tennessee Valley Authority

TABLE 7.5

TAXES LEVIED FOR ALL PURPOSES: FISCAL YEARS 1975, 1976, 1977

	1975 (DOLLARS)	1976 (DOLLARS)	1977 (DOLLARS)
TOTAL LEVIED FOR STATE PURPOSES	13,092,625	12,327,244	12,126,043
UNIVERSITY MILLAGE	7,656,374	8,294,941	8,747,713
ELEMENTARY SCHOOL DEFICIENCY	2,683,172	1,730,024	237,845
HIGH SCHOOL DEFICIENCY	1,699,353	1,051,155	142,688
*PERMISSIVE FUNDING			1,294,053
LIVESTOCK	1,053,726	1,051,155	1,703,744
TOTAL LEVIED FOR COUNTY PURPOSES	59,108,855	62,475,109	76,343,210
GENERAL FUND	25,289,656	27,526,691	30,073,841
ROAD FUND	10,164,607	10,971,447	10,701,403
BRIDGE FUND	3,716,990	3,746,141	3,942,755
POOR FUND	8,577,730	7,311,074	7,809,475
BOND INTEREST AND SINKING	2,189,749	2,148,826	1,476,561
COUNTY FAIR	1,177,252	1,126,328	1,281,910
COUNTY LIBRARY	1,268,001	1,434,787	1,595,184
AGRICULTURAL EXTENSION SERVICE	458,508	605,812	683,638
**MISCELLANEOUS	3,345,857	3,289,604	2,266,905
OTHER	2,920,505	4,314,399	6,511,538
TOTAL LEVIED FOR SCHOOL PURPOSES	117,363,383	122,694,614	132,802,201
ELEMENTARY COUNTY-WIDE	44,734,291	46,262,417	48,896,257
HIGH SCHOOL COUNTY-WIDE	32,180,914	33,651,421	34,765,130
DISTRICT SCHOOLS	40,448,178	42,780,776	49,140,814
TAXES LEVIED FOR SPECIAL DISTRICT & MISC. PURPOSES			
HIGH SCHOOL DISTRICT	31,603,127	34,580,958	38,930,529
FIRE DISTRICT	1,462,727	1,321,576	1,764,537
OTHER	7,323,919	8,982,720	11,921,223
TOTAL--ALL TAXES EXCEPT CITIES AND TOWNS	229,954,636	242,382,221	263,887,743
TAXES LEVIED FOR CITIES AND TOWNS			
GENERAL	28,406,120	28,953,929	27,858,163
SPECIAL IMPROVEMENT DISTRICT	8,382,144	9,082,472	10,088,678
GRAND TOTAL--ALL TAXES FOR ALL PURPOSES	266,742,900	280,418,622	301,834,584

*Imposed to fully fund local permissive levies above 6 mills on high school districts and 9 mills on elementary districts. **Includes cemetery, hospital, senior citizens, airport, weed control, local government study commission.

SECTION 08: SOCIAL INSURANCE AND WELFARE

TABLE 8.1

OLD-AGE, SURVIVORS, DISABILITY, AND HEALTH INSURANCE BENEFICIARIES BY TYPE AND AGE, AND BY SEX OF ADULT BENEFICIARIES: END OF DECEMBER 1975, 1976

SOCIAL SECURITY BENEFICIARIES	END OF DECEMBER 1975	END OF DECEMBER 1976
TOTAL BENEFICIARIES IN CURRENT PAYMENT STATUS	108,746	110,854
RETIRED WORKERS	56,963	58,593
DISABLED WORKERS	7,963	8,079
SPOUSES OF RETIRED OR DISABLED WORKERS	11,840	11,997
CHILDREN OF RETIRED, DISABLED, OR DECEASED WORKERS	17,843	17,551
WIDOWS, WIDOWERS, OR PARENTS	14,265	14,634
BENEFICIARIES BY AGE GROUP		
UNDER AGE 65	39,350	39,574
AGE 65 to 71	30,788	31,934
AGE 72 AND OVER	38,608	39,346
ADULT BENEFICIARIES BY SEX		
MALE	39,450	40,454
FEMALE	51,453	52,849

NOTE: For program definitions and history of the provisions of the Social Security Act, see Social Security Bulletin, Annual Statistical Supplement, Social Security Administration, U. S. Department of Health, Education and Welfare.

TABLE 8.2

OLD-AGE, SURVIVORS, DISABILITY, AND HEALTH INSURANCE MONTHLY CASH BENEFITS BY TYPE AND AGE OF BENEFICIARIES, AND BY SEX OF ADULTS: END OF DECEMBER 1975, 1976

ITEM	BENEFITS PAID END OF DECEMBER 1975 (DOLLARS)	BENEFITS PAID END OF DECEMBER 1976 (DOLLARS)
TOTAL MONTHLY CASH BENEFITS IN CURRENT PAYMENT STATUS	19,165,032	21,310,241
RETIRED WORKERS	11,464,292	12,816,172
DISABLED WORKERS	1,763,946	1,980,729
SPOUSES OF RETIRED OR DISABLED WORKERS	1,177,621	1,298,434
CHILDREN OF RETIRED, DISABLED, OR DECEASED WORKERS	2,070,393	2,238,331
WIDOWS, WIDOWERS, OR PARENTS	2,688,780	2,976,575
MONTHLY CASH BENEFITS BY BENEFICIARY AGE GROUP		
UNDER AGE 65	5,820,956	6,452,069
AGE 65 AND OVER	13,344,076	14,858,172
MONTHLY CASH BENEFITS BY SEX OF ADULT BENEFICIARIES		
MALE	8,794,793	9,821,075
FEMALE	8,299,846	9,250,835

TABLE 8.3

ENROLLMENT AND REIMBURSEMENT FOR HOSPITAL AND MEDICAL INSURANCE (MEDICARE), PERSONS AGED 65 AND OVER, AND DISABLED BENEFICIARIES: 1973 TO 1975

ITEM	1973 NUMBER ENROLLED AS OF JULY 1	1973 AMOUNT REIMBURSED CALENDAR YEAR (DOLLARS)	1974 NUMBER ENROLLED AS OF JULY 1	1974 AMOUNT REIMBURSED CALENDAR YEAR (DOLLARS)	1975 NUMBER ENROLLED AS OF JULY 1	1975 AMOUNT REIMBURSED CALENDAR YEAR (DOLLARS)
HOSPITAL AND/OR MEDICAL INSURANCE	72,992	25,053,348	74,375	27,341,677	75,872	33,929,519
HOSPITAL INS	72,463	18,607,682	73,813	19,263,722	75,283	24,030,121
SUPPLEMENTARY MEDICAL INS	70,964	6,445,666	72,441	8,077,955	73,959	9,899,898
*DISABILITY BENEFICIARIES						
HOSPITAL AND/OR MEDICAL INSURANCE	5,806	664,169	6,264	2,480,217	7,064	3,498,622
HOSPITAL INS	5,806	535,283	6,264	1,718,054	7,064	2,406,564
SUPPLEMENTARY MEDICAL INS	5,475	128,886	5,870	762,163	6,590	1,092,058

TABLE 8.4

PERSONS RECEIVING PAYMENTS UNDER THE FEDERAL **SSI PROGRAM AND UNDER FEDERALLY-ADMINISTERED STATE SUPPLEMENTATION PROGRAMS, AND AMOUNT OF PAYMENTS: JUNE 1975, 1976, 1977

ITEM	JUNE 1975	JUNE 1976	JUNE 1977
TOTAL RECIPIENTS	8,200	8,147	7,698
AGED	3,935	3,543	3,105
BLIND AND/OR DISABLED	4,265	4,604	4,593
MONTHLY PAYMENTS (dollars)	NA	770,883	801,116
AGED	NA	227,518	212,295
BLIND AND/OR DISABLED	NA	543,365	588,821

TABLE 8.5
EXPENDITURES FOR AID TO DEPENDENT CHILDREN AND MEDICAL CARE: 1972 TO 1977

YEAR	AID TO DEPENDENT CHILDREN			*MEDICAL ASSISTANCE (MEDICAID)		
	ANNUAL AMOUNT (DOLLARS)	AVERAGE NO. CASES PER MONTH	AVERAGE PAYMENT PER MONTH (DOLLARS)	ANNUAL AMOUNT (DOLLARS)	AVERAGE NO. CASES PER MONTH	AVERAGE PAYMENT PER MONTH (DOLLARS)
1972	10,991,690	6,332.6	144.62	13,135,543	12,159.1	89.88
1973	11,672,321	6,590.2	147.40	17,152,206	12,507.4	113.55
1974	12,909,613	6,992.5	153.74	25,150,452	14,944.5	139.83
1975	12,280,846	6,748.6	151.57	30,600,502	16,758.6	152.36
1976	12,280,660	6,149.9	166.33	34,736,161	16,495.2	175.20
1977	12,582,455	6,146.6	170.64	43,304,299	16,684.3	216.03

TABLE 8.6
HOUSEHOLDS RECEIVING FOOD STAMPS, AND VALUE OF FOOD STAMPS ISSUED BY COUNTY: 1972 TO 1977

YEAR	VALUE OF FOOD STAMPS PURCHASED (DOLLARS)	PUBLIC ASSISTANCE HOUSEHOLDS AVERAGE NO. PER MONTH	NON-ASSISTANCE HOUSEHOLDS AVERAGE NO. PER MONTH	AVERAGE VALUE BONUS PAYMENT PER MONTH (DOLLARS)
1972	8,838,881	4,899.5	4,615.9	46.23
1973	9,020,494	5,119.0	4,420.8	47.10
1974	13,293,538	4,095.5	6,998.5	65.23
1975	16,393,078	3,989.9	8,447.4	73.68
1976	14,467,376	3,451.3	6,973.5	76.45
1977	12,859,547	3,136.1	6,168.4	76.38

*Data for which county breakdown was provided.

SECTION 09: AGRICULTURE

TABLE 9.1

FARMS AND VALUE OF PRODUCTS SOLD: 1969 AND 1974
(Using 1974 definition of farm*)

CENSUS YEAR	ALL FARMS	VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)	FARMS WITH SALES OF $2,500 AND OVER	VALUE OF AGRICULTURAL PRODUCTS SOLD ($1,000)
1969	22,744	574,924	20,603	568,703
1974	23,324	1,033,239	20,177	1,027,135

*Any place operated under the control of an individual management on which sales of agricultural products amounted, or normally would amount, to $1,000 in the census year.

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TABLE 9.2

LAND IN FARMS WITH SALES OF $2,500 AND OVER, ACCORDING TO USE: 1969 AND 1974

	1969		1974	
	**FARMS	ACRES	**FARMS	ACRES
LAND IN FARMS WITH SALES OF $2,500 & OVER	20,603	57,733,713	20,177	56,731,193
TOTAL CROPLAND	19,555	15,741,492	18,966	15,257,374
HARVEST CROPLAND	18,999	7,833,008	18,509	8,375,116
CROPLAND USED ONLY FOR PASTURE OR GRAZING	7,103	1,320,170	5,597	1,040,944
***OTHER CROPLAND	NA	6,588,314	10,849	5,841,314
TOTAL WOODLAND, INCLUDING WOODLAND PASTURE	2,462	1,486,931	2,333	1,511,931
OTHER LAND, INCLUDING OTHER PASTURELAND	NA	40,505,290	17,558	39,961,888

**Number of farms reporting the item.
***Land used for soil improvement crops, land on which all crops failed, land in cultivated summer fallow, and idle cropland.

TABLE 9.3

IRRIGATION ON FARMS WITH SALES OF $2,500 AND OVER: 1969 AND 1974

CENSUS YEAR	IRRIGATED FARMS AS PERCENT OF TOTAL FARMS	TOTAL ACRES IRRIGATED	CROPLAND ACRES IRRIGATED	IRRIGATION WATER ESTIMATED ACRE-FEET APPLIED	ACREAGE IRRIGATED BY SPRINKLER SYSTEMS
1969	38.5	1,800,321	1,641,728	3,552,645	NA
1974	37.3	1,717,764	1,606,798	2,985,625	270,879

TABLE 9.4

FARMS WITH SALES OF $2,500 AND OVER, BY TYPE OF ORGANIZATION: 1969 AND 1974

CENSUS YEAR	FARMS	INDIVIDUAL OR FAMILY OPERATION	PARTNERSHIP INCLUDING FAMILY PARTNERSHIP	CORPORATION INCLUDING FAMILY CORPORATION	*OTHER
1969		17,226	2,483	742	152
1974		17,177	1,693	1,229	78

TABLE 9.5

FARMS WITH SALES OF $2,500 AND OVER, BY TENURE OF FARM OPERATORS: 1969 AND 1974

CENSUS YEAR	FARMS	FULL OWNERS	PART OWNERS	TENANTS	PERCENT OF TENANCY
1969		7,493	10,708	2,402	
1974		8,283	9,652	2,242	

*Cooperative, estate or trust, and abnormal farms which include institutional farms, experimental and research farms, and Indian reservations. Data for abnormal farms were excluded from data for farms with sales of $2,500 and over.

TABLE 9.6
RANKING OF COUNTY IN THE STATE'S AGRICULTURE: 1975

ITEM	UNIT
	(Dollars)
TOTAL CASH RECEIPTS, NOT INCLUDING GOVERNMENT PAYMENT	1,078,329,000
LIVESTOCK AND LIVESTOCK PRODUCTS	420,680,000
CROPS	657,649,000
LIVESTOCK	(Number)
ALL CATTLE AND CALVES (Jan. 1, 1976)	3,150,000
SHEEP (Jan. 1, 1976)	560,000
HOGS (Dec. 1, 1975)	145,000
CHICKENS (Dec. 1, 1975)	980,000
CROP PRODUCTION	(Bushels)
ALL WHEAT	155,925,000
WINTER WHEAT	105,000,000
SPRING WHEAT, EXCEPT DURUM	40,800,000
BARLEY	50,700,000
OATS	10,750,000
	(Tons)
HAY	4,409,000

TABLE 9.7

ASSESSED AND TAXABLE VALUE OF AGRICULTURAL LAND AND IMPROVEMENTS: 1977

ITEM	ASSESSED VALUE (Dollars)	TAXABLE VALUE (Dollars)
AGRICULTURAL LAND	383,694,128	115,099,683
IRRIGATED LAND	44,843,219	13,452,968
NONIRRIGATED LAND	196,643,621	58,993,814
GRAZING LAND	127,314,215	38,194,457
WILD HAY LAND	14,839,646	4,452,061
*CLASS 8 AGRICULTURAL LAND	33,061	4,957
**CLASS 5 AGRICULTURAL LAND	20,366	1,426
IMPROVEMENTS	191,725,274	57,398,382

*Tract not exceeding 5 acres owned and operated by aged widows, widowers, and disabled who qualify under certain income limitations. **Homesite of veteran with 100 percent service-connected disability.

SECTION 10: BUSINESS ENTERPRISE, TRADE, AND SERVICES

TABLE 10.1

RETAIL TRADE SUMMARY: 1972

ALL ESTABLISHMENTS NUMBER	ALL ESTABLISHMENTS SALES ($1,000)	NUMBER	SALES ($1,000)	PAYROLL PAID EMPLOYEES, WEEK INCLUDING MARCH 12	PAYROLL ENTIRE YEAR ($1,000)
8,824	1,613,941	6,100	1,544,834	38,636	181,196

TABLE 10.2

RETAIL TRADE ESTABLISHMENTS AND SALES, BY KIND OF BUSINESS: 1972

KIND OF BUSINESS	ALL ESTABLISHMENTS NUMBER	ALL ESTABLISHMENTS SALES ($1,000)
TOTAL	8,824	1,613,941
BUILDING MATERIALS, HARDWARE, GARDEN SUPPLY, & MOBILE HOME DEALERS	516	137,812
GENERAL MERCHANDISE GROUP STORES	240	140,636
FOOD STORES	952	357,938
AUTOMOTIVE DEALERS	577	340,112
GASOLINE SERVICE STATIONS	1,190	150,242
APPAREL AND ACCESSORY STORES	474	80,616
FURNITURE, HOME FURNISHINGS, & EQUIPMENT STORES	396	65,012
EATING AND DRINKING PLACES	2,111	153,428
DRUG STORES AND PROPRIETARY STORES	222	56,750
MISCELLANEOUS RETAIL STORES	2,146	130,849

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TABLE 10.3
WHOLESALE TRADE SUMMARY: 1972

MERCHANT WHOLESALERS		*OTHER OPERATING TYPES		INVENTORIES, END OF YEAR	PAYROLL, ENTIRE YEAR	PAID EMPLOYEES WEEK ENDING
NUMBER	SALES ($1,000)	NUMBER	SALES ($1,000)	($1,000)	($1,000)	MARCH 12
1,409	1,070,173	387	502,924	154,020	92,250	12,555

TABLE 10.4
SELECTED SERVICE INDUSTRIES SUMMARY: 1972

ALL ESTABLISHMENTS		ESTABLISHMENTS WITH PAYROLL			
NUMBER	RECEIPTS ($1,000)	NUMBER	RECEIPTS ($1,000)	PAID EMPLOYEES, WEEK ENDING MARCH 12	PAYROLL ENTIRE YEAR ($1,000)
6,778	235,844	2,789	198,806	12,928	59,483

TABLE 10.5

SELECTED SERVICE INDUSTRIES AND RECEIPTS BY KIND OF BUSINESS: 1972

SELECTED KIND-OF-BUSINESS GROUPS	ALL ESTABLISHMENTS	
	NUMBER	RECEIPTS ($1,000)
TOTAL	6,778	235,844
HOTELS, MOTELS, TRAILERING PARKS, CAMPS	1,013	51,367
PERSONAL SERVICES	NA	NA
BUSINESS SERVICES	NA	NA
AUTOMOTIVE REPAIR, SERVICES, AND GARAGES	798	30,933
MISCELLANEOUS REPAIR SERVICES	774	17,287
AMUSEMENT & RECREATION SERVICES, INCLUDING MOTION PICTURES	679	22,127
LEGAL SERVICES	505	25,730

*Includes manufacturers' sales branches and sales offices and merchandise agents and brokers.

APPENDIX B

A
Brief
Summary

MONTANA'S LAWS ON LAND-USE PLANNING AND REGULATION

by
Verne W. House*

INTRODUCTION

Montana has a number of laws--both for planning by cities and counties and for regulation of land use. Some of these laws simply permit planning or regulation while others require that government perform some specific action. It is important to recognize the difference between planning and regulation. Planning is a process through which resources are inventoried; it involves finding out what you have and how it is being utilized. Once you know what the existing situation is, you can then begin to explore strategies for taking the community from where it is to where it wants to go.

Regulation, on the other hand, involves laws or rules which have been adopted by government to achieve a specific objective. The most common forms of land-use regulation in Montana are zoning and subdivision review. Zoning establishes permissible patterns of land use; subdivision review provides that certain criteria must be met before proposed developments can be constructed. Other forms of regulation include floodplain management, streambed and lakeshore protection, and facility siting.

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*Public Affairs Economist, Cooperative Extension Service, Montana State University. Appreciation for research and legal assistance in the previous 1976 printing is due Richard W. Weddle, Planning Division, Montana Department of Community Affairs, Helena. This edition was thoroughly researched and revised to include 1977 legislation by Richard L. Reese, Consultant, Helena.

In addition to regulation, Montana has other laws which affect land use by providing tax incentives for those who utilize their land in accordance with certain criteria which the law says reflect the public interest.

The following is a very brief description of current land use planning, regulation, and tax incentive laws. The references in parentheses refer to statutory citations in the Revised Codes of Montana, 1947. Readers seeking more detailed information about these laws are encouraged to contact the agencies charged with administering the laws.

PLANNING ENABLING ACT

(Sections 11-3801 through 11-3856)

Public planning includes inventorying present land uses, identifying and analyzing alternative goals and recommending methods of achieving public goals.*

Planning is permitted within three jurisdictional boundaries in Montana--city, city-county, and county.

City. A city planning board's activities are confined to city limits.

City-County. The jurisdictional area of a city-county planning board includes the city and adjoining areas up to four and one-half miles from the city. This boundary can be extended up to 12 miles from the city limits if at least five percent of the landowners residing between four and one-half and 12 miles of the city petition for it and if a majority of all resident landowners in the area do not petition against the extension. In addition, the planning board may, if requested by the county commissioners, undertake special planning projects in areas outside the planning board's established jurisdictional area.

County-Wide. County planning boards have jurisdiction over the unincorporated area of the county excluding the jurisdictional area of any existing city-county planning board. If a city gains representation on a county planning board, the board's jurisdictional area will also include that city.

Existing city, city-county, and county planning boards may form joint or consolidated planning boards by inter-local agreement.

*For a description and some analysis of planning, ask your county extension agent for USING COMPREHENSIVE PLANNING IN MONTANA, Extension Bulletin 1111. For more detailed information on the laws in this circular, contact the Planning Division, Department of Community Affairs, State of Montana, Helena.

Planning boards do not have regulatory powers; their function is to develop useful information and to advise governing bodies.

REGULATORY STATUTES

County Zoning (Sections 16-4701 through 16-4711)

Boards of county commissioners are authorized to adopt zoning regulations, in accordance with a comprehensive development plan, for all or parts of their jurisdictional area. These regulations are intended to lessen traffic congestion, to enhance safety, to promote health and general welfare, to prevent overcrowding, and to facilitate the provision of adequate transportation, water sewerage, parks, schools, and other public needs.

County Planning and Zoning by Petition (Sections 16-4104 through 16-4107)

In addition to the county zoning authorization described above, county zoning can also be effected through the creation of county planning and zoning districts. However, this form of zoning is initiated by petition rather than by the county commission and need not be based on a comprehensive plan.

Under this enabling statute, zoning can be initiated by the landowners of any unzoned area of at least 40 acres, but there is no provision for representation of the landowners on the commission governing the district. The commission is composed of the county commissioners, the county surveyor, and the county assessor.

Municipal Zoning (Sections 11-2711)

Montana cities and towns are authorized to adopt comprehensive zoning; that is, to divide the municipality into districts and to apply different regulations in each district. These regulations are of two general types: those which regulate the kinds of buildings which may be constructed within districts and those which prescribe the use to which buildings within certain designated districts may be put. Thus, zoning regulations commonly include restrictions on the height, number of stories, and size of buildings and other structures; the percentage of yards, courts, and other open spaces; the locations and use of buildings; and the density of population.

A municipality may also impose zoning regulations with the unincorporated area lying beyond its corporate boundaries if it has adopted a master plan for the area and if the county has not already adopted

zoning for the same area. Pursuant to this authority, first class cities may zone up to three miles, second class cities may zone up to two miles, and third class cities may zone up to one mile beyond their city limits. Before this extraterritorial zoning power may be exercised, however, a city-county planning board with representatives from the unincorporated area must be formed.

Before it can exercise its zoning power, the municipality's governing body must appoint a zoning commission to recommend zoning district boundaries and the regulations to be imposed therein. If it chooses to, the governing body may also create a zoning board for adjustment to review and grant or deny requests for variances from the regulations.

Local Regulation of Subdivisions, Mobile Home Parks, and Condominium Developments (Sections 11-3859 through 11-3876)

The Montana Subdivision and Platting Act prohibits the sale of land subdivided into parcels containing less than 20 acres until a plat of the subdivision has been approved by the appropriate city or county governing body and has been filed with the county clerk and recorder. If a preliminary plat has been approved, lots may be sold on a contract for deed before the final plat is filed provided that the money from such sales is placed in escrow with a chartered lending institution. The contract must state that title cannot be transferred until the final plat is filed. The law applies not only to land subdivisions but to mobile home and recreational vehicle parks, regardless of size, and to condominium development.

The Act requires every city and county to adopt and enforce subdivision regulations which meet minimum standards promulgated by the state Department of Community Affairs.

Under the law, plats submitted to a governing body for approval must be accompanied by an "environmental assessment" which describes the natural characteristics of the land involved and indicates what impact the proposed development will have on the environment and on the provision of community services. The basis upon which a governing body may approve a subdivision is that the development conforms to local regulations and that it will be in the "public interest." If a proposed subdivision lies within an area covered by an adopted comprehensive plan, a zoning ordinance, and a capital improvement plan, the requirement for the "environmental assessment" is waived and the subdivision is assumed to be in the public interest. In addition, the "environmental assessment" and the public hearing are waived for subdivisions of five or fewer parcels when the subdivision is the first from a given tract and where proper access to all lots is proved.

State Regulation of Subdivisions, Mobile Home Parks and Condominium Developments (Sections 69-5001 through 69-5009)

This law provides that with certain exceptions subdivided lots of less than 20 acres may not be created and mobile home and recreational vehicle parks and condominium units may not be developed until the state Department of Health and Environmental Sciences has approved the developer's plans for water supply and for sewage and solid waste disposal. If the subdivision or development is in an area covered by an adopted master plan, the Department of Health and Environmental Sciences need not approve sanitary facilities if the governing body certifies that water supply and sewage disposal facilities will be provided. In subdivisions with five or fewer lots, the Department of Health and Environmental Sciences must delegate to local governments the authority to review sanitary facilities and to make recommendations to the Department.

Building Codes (Sections 69-2101 through 69-2120)

Building codes are minimum standards relating to the design, construction, reconstruction, alteration, conversion and repair of buildings. Municipalities and counties may adopt minimum construction standards established by the state Department of Administration or they may adopt more stringent standards. The Department of Administration may authorize municipalities to extend their building codes up to 4-1/2 miles beyond their city limits. The Department may also authorize the extension of city codes to all of any platted subdivision or all of any area which has been zoned by a county and which is partially within 4-1/2 miles of the city.

The state Department of Administration reviews all plans for public facilities outside municipal jurisdictions.

Floodway Management (Sections 89-3501 through 89-3515)

The Floodway Management and Regulation Act directs the state Department of Natural Resources and Conservation to delineate the floodplains of all streams in Montana and requires cities, towns and counties to regulate land use on floodplains within their jurisdiction. They must adopt local floodway regulations which are at least as stringent as minimum standards promulgated by the Department. The Act specifies that if a local governing body fails to adopt regulations for a floodplain within six months of its delineation, the Department must enforce the state standards within the area.

Lakeshore Protection (Sections 89-3701 through 90-3712)

The Lakeshore Protection Act requires that every city, town and county having jurisdiction over an area containing a lake of at least 160 acres adopt regulations governing the issuance of permits for work which will alter the course, current or cross-sectional area of the lake or its shores. Lakeshore is defined as the perimeter of a lake when the lake is at mean annual high water elevation and includes the land within 20 horizontal feet of the high water elevation. After the regulations are adopted, no lake alteration may be undertaken unless a permit is obtained from the governing body. When a planning board exists, its recommendations as to the regulations must be sought. If the governing body fails to adopt regulations the Department of Natural Resources and Conservation may, upon petition by owners of property adjoining a particular lake, adopt regulations for the lake and exercise the permit granting authority conferred upon governing bodies.

Natural Streambed and Land Preservation Sections 26-1510 through 26-1523)

The Natural Streambed and Land Preservation Act requires anyong proposing to physically modify a stream bed or bank to obtain a permit for the project from the board of supervisors of the conservation or grazing district in which the site of the proposed project is located or from the county commissioners if the site is not located within either a conservation or grazing district.* Each board of supervisors must adopt rules governing the issuance of permits which meet minimum standards promulgated by the state Board of Natural Resources.

*A conservation district is organized by the citizens of a community under provisions of state law. It is a subdivision of state government but is not directed by the Governor, the state legislature, or any other agency. A conservation district is directed by the citizens of the district through an elected governing body called the Board of Supervisors. Conservation districts manage and direct their own programs and affairs. The Boards of Supervisors decide upon district-wide annual and long-range programs and arrange for resources from public and/or private sources to put the programs into effect.

The Montana Conservation District Law provides the district supervisors with broad powers to conduct surveys of erosion and sediment damages, to carry out erosion prevention and control measures, and to develop comprehensive plans for the conservation of soil resources. The districts also have the power to adopt land use regulations in the interest of conserving soil and preventing or controlling erosion. Enforcement of any mandatory land use regulations requires approval on a referendum vote before such regulations can be adopted.

Major Facility Siting (Sections 70-801 through 70-829)

The Major Facility Siting Act provides that no large energy generation, conversion, or transmission project may be undertaken in Montana until the state Board of Natural Resources and Conservation has issued a certificate of approval of the development. Under the Act, application for certification is made to the Department of Natural Resources and Conservation, which is allowed up to 600 days to evaluate the application and make a recommendation thereon to the Board. The Board's decision to approve a project must be based on testimony presented at public hearings and on a broad range of environmental and social determinations including findings that there is a need for the facility and that the facility will serve the public interest and convenience.

TAX INCENTIVES

Voluntary Conservation Easements (Sections 62-601 through 62-618)

The Open-Space Land and Voluntary Conservation Easement Act provides that certain tax-exempt (non-profit) private organizations (in addition to public bodies) may acquire by purchase or gift conservation easements in real property. The easements, given voluntarily by the landowner, would impose varying limitations on the development of the property either in perpetuity or for a period of at least 15 years. The bill gives local planning boards the right to review and comment on easements proposed within their jurisdictional areas. Once land has been reserved to open space use under a conservation easement, it may not be converted to another use unless the conversion is: (a) necessary to the public interest; (b) not in conflict with the program of comprehensive planning for the area; and (c) permitted by the conditions imposed at the time of the creation of the conservation easement.

Montana Economic Land Development Act (MELDA) Sections 84-7502.1 through 84-7520.1)

This law permits Class 1 and Class 2 cities which are already zoned to develop a plan which classifies all land within the city into several categories. Once adopted and approved, property tax assessments are adjusted to reflect whether or not land is being used in conformity with the plan. Conforming uses are encouraged through reduced property taxes and non-conforming uses are penalized by higher property taxes. Counties are not eligible to participate in M.E.L.D.A. and it does not apply to agricultural lands. In order to implement the law in eligible cities, 15% of the voters must sign a initiative petition and the question of implementation must be approved by a majority of the city's voters.

Use-Value Taxation of Agricultural Land (Sections 84-437.1 through 84-437.17)

This statute provides that agricultural land, unlike other real property, is to be assessed for tax purposes according to its agricultural rather than market value. The law also stipulates that when a property owner converts agricultural land to a non-agricultural use, he must pay the difference between the taxes paid on the property during the four years preceding the conversion and the taxes which would have been paid if the property had been taxed according to its market value during this four-year period.

LAND USE PLANNING IN FEDERAL PROGRAMS

In recent years federal agencies have undertaken a number of programs to actively involve the public in making land use decisions on federal lands or in federally funded projects. Some of these programs are of special interest to Montana and it is easy to confuse state and local planning with federal programs. Citizens wanting more information about public participation in Forest Service, Bureau of Land Management and water quality programs are referred to the following publications:

U. S. Forest Service

"The Resources Planning Act and You," March 1977. (A brochure available at Forest Service offices throughout Montana.)

"A Summary of Renewable Resource Assessment and a Recommended Renewable Resource Program," February 1976. (Available at Forest Service offices, 19 pages.)

Bureau of Land Management

Public Law 94-579, Title II: "Land-Use Planning: Land Acquisition and Disposition." (See esp. Sections 202 and 212.)

Water Quality Act (Section 208 Programs)

"Inventory of Laws Affecting Montana Water Quality," by Richard Klinger, November 1976. (165 pages plus appendices. Check with Montana Water Quality Bureau, Helena, Montana 59601 for availability of this publication and brochures on Section 208.)